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En esta nueva andadura del Boletín de Vigilancia Tecnológica del Sector Transformador Plástico que comenzó el primer trimestre de 2021, la Oficina Española de Patentes y Marcas (OEPM) ha iniciado una nueva colaboración con AIMPLAS, Instituto Tecnológico del plástico que se encuadra dentro de una de las actividades de colaboración que la OEPM viene llevando a cabo con diferentes centros tecnológicos para hacer llegar a las empresas e investigadores que los integran, con periodicidad trimestral, una selección de las patentes más recientemente publicadas en el sector de transformación de los materiales plásticos.

AIMPLAS es un Centro Tecnológico con más de 30 años de experiencia en el sector del plástico que aporta soluciones a las empresas, en toda la cadena de valor, desde fabricantes de materia prima a transformadores y usuarios finales. A través de la I+D+i contribuye a resolver los retos que se plantea la sociedad en relación a los plásticos, para mejorar la calidad de vida de las personas y asegurar la sostenibilidad medioambiental.

La Oficina Española de Patentes y Marcas tiene como misión impulsar la innovación y compartir sus resultados como valores y activos de diferenciación y desarrollo tecnológico. Por ello sus dos objetivos principales son proteger la innovación tramitando distintos títulos de propiedad industrial y difundir la información técnica contenida en las patentes a través de sus servicios de Información Tecnológica, uno de ellos estos Boletines.

Como novedad de esta etapa, se reestructura el contenido del Boletín, intentando reflejar la realidad en propiedad industrial de la Industria del Plástico desde el punto de vista de nuevos productos en los principales sectores de aplicación, desarrollos que contribuyen al desarrollo sostenible, mejoras de procesos productivos y nuevos materiales plásticos con propiedades avanzadas. No se ha incluido en este Boletín información sobre la tecnología de impresión 3D, ya que esta aparece recogida en el [Boletín de Vigilancia Tecnológica Impresión 3D](#) que la OEPM comenzó a publicar en el 2020 .

A través de las imágenes que representan cada sección y que aparecen en la portada del Boletín, se accede de forma directa a los contenidos de las mismas, donde encontraremos el número de publicación de cada patente, quien la solicita, una pequeña descripción de la invención y el enlace de acceso al texto completo del documento. De forma complementaria, se incluye una selección de novedades extraídas del Observatorio del Plástico junto con noticias sobre actividades relevantes de la OEPM.

Si se desea recibir este Boletín periódicamente basta con cumplimentar el correspondiente [formulario de suscripción](#)

Contenido



NUEVOS PRODUCTOS

SOSTENIBILIDAD Y
ECONOMÍA CIRCULARNUEVOS PROCESOS
INDUSTRIALESMATERIALES CON
PROPIEDADES AVANZADAS
O MEJORADAS

LOS DESARROLLOS QUE ESTÁN POR VENIR

Los últimos coletazos del programa H2020 nos dejan cerca de 100 proyectos relacionados con el sector plástico. Durante el tercer trimestre de 2021 se han puesto en marcha las acciones para llevar a cabo cerca de proyectos de I+D financiados por la Unión Europea en los que los materiales plásticos tienen un gran protagonismo.

Analizando los objetivos a desarrollar por estos proyectos, se observa una fuerte presencia de iniciativas relacionadas en mayor medida a aportar soluciones a las nuevas políticas de Economía Circular y a obtener desarrollos que mejoren la sostenibilidad del sector.

Así, encontramos proyectos orientados a analizar las posibilidades de la circularidad de los materiales plásticos desde un punto de vista genérico, como CircThread, hasta su aplicación específica en suelos (CISUFLO), textiles (SCIRT), agricultura (PAPILLONS) o envase (CIMPA y CIRCULAR FoodPack).

Mención aparte se merecen los proyectos centrados aspectos relacionados con el reciclado, tanto con el desarrollo o mejora de tecnologías, como en el reciclaje de materiales complejos:

VIBES Improving recyclability of thermoset composite materials through a greener recycling technology based on reversible biobased bonding materials.

MERLIN Increasing the quality and rate of MultilayER packaging recyclINg waste.

SUNRISE MultiSensor sorting tools in a circular economy approach for the efficient recycling of PVB interlayer material in high-quality prodUcts from laminated glass coNstRuction and demolltion waStEs.

REPLAXTIC Plastic upcycling for sustainable new generation batteries.

SOL-REC2 Innovative digital watermarks and green solvents for the recovery and recycling of multi-layer materials.

PHOENIX Green Hydrogen Production and Plastic Recycling via Anion Exchange Membrane Reactors.

Continuando en el marco de la sostenibilidad, también encontramos proyectos centrados en la obtención de materiales más sostenibles, bien de forma genérica (**RenEcoPol** Sustainable route for circularity of renewable polyesters) y (**PolySO2** Controlled metal-catalysed polymerisation of SO₂-derived sources to high performance and recyclable materials), bien para aplicaciones como impresión 3D (**DeMANS** Design and manufacture of sustainable materials for additive manufacturing technologies) o envase (**PACK-NIN** Modified lignin nanoparticles for composite and bio-based/Cu packaging applications)

En línea con la preocupación sobre la situación de los plásticos en el medio ambiente, es importante destacar aquellos proyectos orientados a estudiar y analizar el comportamiento de los micro y nanoplásticos en el planeta. Al menos 5 proyectos han arrancado este segundo trimestre con el objetivo de conocer en detalle la interacción de los microplásticos con el ser humano:

IMPTOX An innovative analytical platform to investigate the effect and toxicity of micro and nano plastics combined with environmental contaminants on the risk of allergic disease in preclinical and clinical.

PLASTICHEAL Innovative tools to study the impact and mode of action of micro and nanoplastics on human health: towards a knowledge base for risk assessment.

MIGMIPS Micro-guts for the study of translocation of microplastic.

AURORA Actionable eUropean ROadmap for early-life health Risk Assessment of micro- and nanoplastics.

POLYRISK Understanding human exposure and health hazard of micro- and nanoplastic contaminants in our environment.

Y una propuesta para minimizar la presencia de los plásticos en el mar: **LABPLAS** Land-Based Solutions for Plastics in the Sea.

Dejando los proyectos con alta carga medioambiental, encontramos otros proyectos en los que se estudian nuevos materiales para nuevas aplicaciones.

RPOB Redox Polymer with synergetic electrical and ionic conducting properties for all-Organic Batteries [RPOB].

IDCP Intrinsically Dynamic Covalent Polymers.

TRANS Synthesis of novel stimuli responsive dielectric polymers and their use in powerful transducers.

O proyectos orientados a la mejora de sistemas productivos en el marco de Industria avanzada:

NANOFIX Miniature electrospinning system for in-situ coating application by drone.

EMERGE Emerging Printed Electronics Research Infrastructure (EMERGE).

Para finalizar con este repaso por los últimos proyectos europeos puestos en marcha, no podemos olvidar los desarrollos relacionados con el sector salud y bienestar:

M-SCPA Development of Soft, Efficient, Powerful, and Rapid Artificial Muscles for the Design of a Soft Wearable Haptic Exoskeleton.

WEARSENSNANO Continuous monitoring of hypothermia in elderly people by the novel integrated wearable sensor system based on cellulose hydrogel and metallic nanowires.

RACHEL Organic actuators as a tool for understanding the tactile sense: toward virtual medical touch.

POLYMAE Polymeric Membranes for Artificial Endosymbionts.

La investigación a nivel europeo de los plásticos en sus diferentes facetas, nos permitirá encontrar nuevas patentes en un futuro próximo que mejorarán la calidad de vida de las personas.

NUEVOS PRODUCTOS

En el siguiente gráfico se muestra la distribución de las 20.897 familias de documentos de patente recuperadas en este trimestre en el apartado de Nuevos Productos. Como se observa más de la mitad se refieren al campo de la electrónica.



Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

Envase y Embalaje

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021115683	(UNIL) CONOPCO INC DBA UNILEVER (UNIL) UNILEVER IP HOLDINGS BV	Cartridge used for system for dispensing frozen confection comprises tubular body extending from open end to dispensing end and comprising an inwardly projecting rim at dispensing end, piston, and end piece closing the end of tubular body
ES1266679	(TORR-I) MARTINEZ TORRADO L	Efficient folding container, comprises a multilayer composite of cardboard or other rigid material and a downward folding pattern by the cuts in a rigid layer on the side faces in the form of a zig zag or spring

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR102264102	(GREE-N) GREEN CHEM CO LTD	Biodegradable sheet container with high heat resistance comprises sheet body made of a biodegradable sheet composition including polylactic acid, polybutylene adipate-co-terephthalate, and biodegradable polymer including dispersant
BE1027667	(DECA-N) DECA PACKAGING GROUP VERKORT DECA NV	Pot such as a tub, comprises a bottom, an upright wall that is made of plastic by injection molding and multiple in-mold labels, two peripheral portions that approaches each other in an approach zone and a straight baseline
EP3822306	(COUL) COUNCIL SCI & IND RES SOUTH AFRICA	Composite active flexible polymeric film for containers for containing acidic foodstuffs and beverages containing fruity acids material, comprises inner active layer of polyethylene calcium carbonate composite
EP3825250	(BIBE-N) BIBETECH SPA	Continuous production of manufactured articles E.G., coffee capsules for food use made of food-grade compostable polymeric compound involves injection molding polymeric compound, and thermally treating semi-finished articles
AU2021100983	(BHAR-I) BHARTI P K (CHOR-I) CHORDIYA S B (DPHA-I) D PHATANGARE N (DESW-I) DESWAL L (KUMA-I) KUMAR R K (PAND-I) PANDEY S K (RAJB-I) RAJ B (RAOM-I) RAO M N (SARK-I) SARKAR B K (SING-I) SINGH P N	Plastic packaging material E.G. biodegradable packaging material, is prepared by extruding expanded high amylose starch product including amylase in presence of water and using apparatus which can handle mixed streams of feed stocks
BR102019019477	(BOMI-N) BOMIX IND EMBALAGENS LTDA	Plastic container E.G. paint bucket, has U-shaped intermediate portion for pressing inner wall portion of container body, and shoulder unit for exerting force on resilient wall of lid
WO2021080893	(WISE-N) WISEPAC USA INC	High-barrier packaging film for bag and pouch, comprises outer layer of high-molecular polymer, and passive barrier layer comprising high-molecular polymer with nanoparticles of bentonite clay, and active barrier layer, and lamination layer
WO2021080497	(PETR-N) PETRO PACK AB	Package closure used for packages for liquid foodstuff, E.G. milk, juice, water, yoghurt, has folded portion which connects wall of cap with neck, and top portion of cap is connected to wall through breakable notch and hinge
WO2021079335	(SSEM) GD SPA	Package with sliding opening for consumer goods, has casing arranged externally to covering in which access to group of consumer goods contained in first container is not allowed between closing position and is allowed in opening position
WO2021066048	(HSKW) HOSOKAWA YOKO KK (NICB) NICHIBAN KK	Bag-like material for wrapping pharmaceutical product, comprises patch comprising volatile pharmacologically-active ingredient, cyclic polyolefin-type film, uniaxially stretched polyolefin film, and film on which metal is vapor-deposited

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
BR102019017392	(UYPE-N) UNIV FEDERAL PERNAMBUCO	Active packaging of poly (butylene adipate-co-terephthalate) (PBAT) added with cassia cinnamon essential oil (Cinnamomum sp) used in food industry comprises PBAT polymer films and cassia cinnamon essential oil
JP2021046626	(OJIP) OJI HOLDINGS CORP	Barrier laminate for forming heat-sealed, bag-shaped package, comprises paper base material, resin layer comprising water-suspendable polymer, inorganic compound and cationic resin, and protective layer having preset contact angle to water
WO2021053527	(MIPT) POLITECNICO DI MILANO (GHEL-N) GHELFI 1905 SRL	Semimanufacture for packaging food, has pressure or temperature activatable thermoplastic material layer that is provided at portions/areas and is activated on remaining portions or areas of contact surfaces of layers
JP2021029582	(OMRO) OMRON CORP (OMRO) OMRON KK	UV irradiation device used in beverage container, has light-guide plate that is supported by base material so that end surface contacts light emitting surface, and wiring connects electrode of light emitting element and electronic component
JP2021038212	(EART) EARTH SEIYAKU KK	Controlling pest by using aerosol product in which pressure-resistant container is filled with aerosol composition comprising stock solution comprising active ingredient and propellant, and spraying on object made of metal or resin
US2021070526	(TILL-N) TILLAMOOK CREAMERY ASSOC	Microwavable food comprises food layers comprising foods to be maintained within predetermined temperatures, and microwave active container partially enclosing food layers, where microwave active container is configured to heat selectively
US2019232604	(PROC) PROCTER & GAMBLE CO	Manufacturing water soluble product by providing water soluble fibrous first ply, providing water soluble fibrous second ply formed on surface, superposing first ply and second ply, and joining portions of ply to form water soluble product

Construcción Tejados

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021126137	(BESP-I) BESPATYY A V	Multi-layered roofing tile used for roofs, has upper protective layer that is configured to cover top and sides of tiles, and sound and heat insulation layer that is located after upper protective layer, and that is made of foam concrete
EP3839165	(ISID-N) ISIDOVIAS-INVESTIMENTOS LDA	Multilayer panel for use in civil construction industry such as on walls, pavements and roofs has inner side faces that extend from lower face of composite structure, through polymer foam layer to predetermined thickness of concrete layer
EP3835364	(BASE) BASELL POLIOLEFINE ITAL SRL	Mixture for roofing membrane and road paving, comprises bitumen, and copolymer of butene-1 with at least one comonomer selected from ethylene, propylene, and alpha-olefins, and optionally fillers and/or other polyolefins
EP3835363	(BASE) BASELL POLIOLEFINE ITAL SRL	Mixture of bitumen and butene-1 polymers used in roofing membrane and road paving comprises bitumen and butene-1 polymer composition having E.G. butene-1 homopolymer or copolymer of butene-1 with comonomer of E.G. ethylene and/or olefins
JP2021085209	(LONS) LONSEAL CORP	Waterproof structure used for rooftop, has thermoplastic resin layer arranged on heat insulating material layer side and noncombustible material layer which is arranged on side of thermoplastic resin-based waterproof layer
US2018320370	(FIRE) FIRESTONE BUILDING PROD CO LLC	Construction board E.G. polyisocyanurate cover board, for use in commercial roofing systems, has first coating formed on external surface, and second coating arranged to internal surface, where second coating includes intumescent material
US2019316011	(SHEW) SWIMC LLC	Composition comprises an aqueous carrier liquid, and a latex copolymer formed from reactants comprising a vinyl monomer having alkyl, homopolymer formed from vinyl monomer and coating
US2021095474	(BMAT) BUILDING MATERIALS INVESTMENT CORP	Roofing composite membrane useful as building membranes for sloped roofing systems and siding, comprises base layer comprising thermoplastic polyolefin, and coating layer partially coating base layer, and comprising inorganic additive
US2019260328	(TESM) TESLA INC	Photovoltaic roof module, has first photovoltaic roof tile and second photovoltaic roof tile positioned adjacent to first photovoltaic roof tile, where spacer is coupled to and positioned between first and second photovoltaic roof tiles

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2021095473	(BMAT) BUILDING MATERIALS INVESTMENT CORP	Method for forming a sloped roof, involves obtaining a base layer that have one of a permeable mesh, woven fabric, non-woven fabric, plastic, foam material or combinations, and base layer over roofing substrate of the sloped roof is applied
CA3052162	(BARR-I) BARRIOS A J	Solar shake system mounted on roof of residential building, has solar shake that is provided with low-profile solar panels that are embedded into metal, plastic, synthetic or composite material structure, and solar shake plug system
WO2021074339	(ONDU-N) ONDULINE	Flat photovoltaic tile used in roof covering of a sloping roof, has a shell and a planar photovoltaic element that is used for producing electricity, while upstream edge is intended to be installed higher than the downstream edge
WO2021064634	(REDE-N) REDEAHOLD APELDOORN BV	Construction material, preferably roof covering material, used to make watertight mainly flat and slightly pitched roofs of houses, buildings and other roof constructions contain watertight sheet material from at least plastic and additive
KR20210036072	(SEAJ-N) SEA JIN LIGHT CO LTD	Method for connecting plastic roof panel and plastic wall panel to enhance convenience and appearance of buildings, involves
US2018187419	(CERT) CERTAIN TEED CORP (CERT) CERTAINTEED CORP (CERT) CERTAINTEED LLC	Roofing element comprises component of foamed cured cross-linked polymer having top and bottom surface, and layer of weather-resistant roofing granules arranged on and adhered on top surface of element
WO2021046280	(BADI) BASF SE (IYER-I) IYER S G	Aqueous coating composition used for forming sprayed film and barrier coating E.G. roof coating, architectural coating and industrial coating, comprises coating components comprising polymer, filler and phosphoric acid catalyst

Construcción Conducciones

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
BR202019021527	(BASS-I) BASSI Z A (BASS-I) BASSI Z M A (SART-I) SARTORI D S F (VINI-I) VINICIUS B M	Constructive arrangement of mountable pipes for drainage of pluvial water, comprises a cylindrical main body that is made of recycled polymer, and upper bases are provided with longitudinal through holes where tapered pins are inserted
DE202019106755	(REHA) REHAU & CO AG	Connection system for connecting pipe to main pipe, has main attachment element end face whose opposite end adapted to shape of inner surface of main pipe or shaft in area of transverse opening, which is connected to installation insert

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021052608	(DHAA-N) DE HAAS HOLDING BV	Grid-shaped retention device for immobilizing pipe of conditioning system in building, includes two sets of parallel beams intersecting together and defining recesses for receiving and retaining pipes

Construcción Muros

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021089152	(XYLO-N) XYLO TECHNOLOGIES AG	Panel for wall coverings, has rear short side which is provided with joint profile that consists of lower male locking element in state of being engaged with lower female locking element of front short side
WO2021059062	(FLRG) FLOORING IND LTD SARL	Floor or wall covering, has floor or wall panels, while a recess is provided at the surface of the floor or wall covering between two panels mechanically coupled to each other by the male coupling portion and the female coupling portion

Construcción Aislamientos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021123838	(AGRL-N) AGR LIVING LTD	Structural insulated panel for use in modular building construction, has first board attached to surface of frame, and insulating layer bounded by frame and first and second boards
KR20210071549	(KOCT) KOREA CIVIL ENG & BUILDING TECHNOLOGY	Insulation and waterproof composite for external insulation of underground structure, comprises external insulation material that is detachably installed on inner surface of outer formwork, waterproof sheet, and water-soluble release film
KR20210001350	(SIKM-I) SIK M J	Small thermal insulation building for collecting existing building materials related to construction, has ceiling insulation window that is provided with transparent translucent double plastic panel so that light passes through window
EP3831596	(ITRI) IND TECHNOLOGY RES INST	Soundproof material for insulation from E.G. outdoor and indoor noise, comprises structural element containing through hole(s) passing through structural element and extending in direction, and composite film containing micro cavity

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3835504	(IZOD-N) IZODOM 2000 POLSKA SP ZOO	Thermal-insulation and drying panel of wall thermal-insulation and drying system, has horizontal key whose lower surface is additionally deepened towards lower edge of thermal-insulation and drying panel and deepening forms ventilation duct
PL128621	(SNST-N) SN STRUKTON SP ZOO	Multilayer facade-thermal insulation panel has insulation layer that is made of plastic foam which permanently connects moisture-impermeable shielding plate, facade cladding, and flat-bar shaped anchors during foaming process
US2020011120	(GURD) GUARDIAN GLASS LLC	Insulating glass unit for interior and exterior windows utilized in commercial applications, has first and second conductive films electrically connectable to power source that is controllable to selectively set up potential difference
KR20210049442	(GLDS) LG HAUSYS LTD	Parquet flooring comprises board, first sound insulation layer made up of cork layer or foam layer, composite substrate, and surface material as floor covering
BR202019018786	(SHIM-I) SHIMIZU A	Constructive arrangement for use in barrier of insulation of the areas, has structural profile that is formed with plastic material, and is equipped with hollow section, and joining elements are positioned at joint of barriers
KR102242117	(KORO-N) KOREA ROCKCELL BOARD CO LTD	Semi-non-combustible heat-insulating composite board for E.G. building, comprises polyisocyanurate foam board, calcium-carbonate-based foam insulation board comprising inorganic filler and vinyl chloride resin, and inorganic adhesive layer
US2021087351	(CVST) COVESTRO DEUT AG (CVST) COVESTRO INTELLECTUAL PROPERTY GMBH & CO	Producing polyurethane foam used in heat insulation member, by spraying polyurethane foam stock solution comprising polyisocyanate component and polyol component in mist form by using compressed gas, where compressed gas is heated
WO2021074493	(FINN-N) FINNFOAM OY	Thermal insulation plate used in floor structures, has cavity that is arranged in spacer through entire height of spacer and cavity is arranged in different direction than grooves in thermal insulation plate
KR102237835	(NURI-N) NURIINFRA CO LTD	Non-flammable insulation integrated panel has polymeric polymer powder whose content is predetermined in parts by weight and more and determined in parts by weight and less based on determined parts by weight of floating beads
JP2021055102	(FFFF-N) F CONSULTANT CO LTD	Coating material used for protecting steel, concrete or wood, comprises coating material comprising polyol and polyisocyanate components and powder comprising foaming agent and carbonizing agent, and forms carbonized heat insulating layer

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2021054627	(WARK-I) WARK C G	Extruded thermoplastic twin-wall sheet for providing insulated separation between interior and exterior conditions, has ribs are equidistant between adjacent arcs in contour of second wall and extend length of walls in extrusion direction
DE202019106571	(REHA) REHAU & CO AG	Hollow chamber profile for a window or a door that is made of a thermoplastic material, comprises a thermoplastic material that forms the inner walls and the outer walls, an insulation element, a metal layer and a plastic film
JP6850380	(ASAJ) ASAHI FIBREGLASS KK	Aqueous binder used for inorganic fiber heat insulating sound absorbing material, comprises polymer containing carboxy group, and crosslinking agent comprising alkanolmonoamine and polyamine containing imino group
EP3795763	(CRHN-N) CRH NEDERLAND BV (CRHS-N) CRH STRUCTURAL CONCRETE BELGIUM (PREF-N) PREFACO NV SA (THER-N) THERMOMASS	Method of making insulated wall E.G. concrete layer at inside of building support roof beams or floor slabs, involves providing insulation material and first wall panel is positioned next to second wall panel to form cavity wall
WO2021050014	(DIZA-N) DIZAYN GRP TEKNOLOJI ARASTIRMA VE GELIST	Hybrid wall panel for residential and commercial building, has heat exchanger system with number of pipes serving as conduits for heating or cooling fluid and hybrid wall panel comprises insulation layer has air voids in structure
EP3786411	(LITW-I) LITWINSKI A	Multilayer door leaf used in entrance door in building, has outer layers that are made of metal sheet, and damping-insulating layer provided between outer layers and made of mineral wool and placed between expanded polystyrene foam layers

Construcción Ventanas

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102019133671	(REHA) REHAU & CO AG	Shading system E.G. roller shutter curtain for window of building, has control element to move movement state of shading element depending on input signal from touch-sensitive input element continuously or in zones between two states
WO2021107885	(URBA-I) URBAY M	Window profile used with an easy mounting features with a sliding mechanism, comprises horizontal and vertical profiles capable of moving freely within the plastic frame by mutual alignment prior to mounting

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2021172180	(ROCK-N) ROCKWELL LLC	Modular window well insert for buildings, designed to be attached to an existing window well, comprises a long fiber reinforced plastic, and a body with a varying wall thickness and comprising a multitude of ribs and wall surface portions
WO2021102225	(REGC) UNIV CALIFORNIA	Smart window used in buildings, comprises solid polymer film which is opaque at ambient temperature and transparent at elevated temperature, transparent heater, and power supply connected to transparent heater
US2021123294	(NEAR-I) NEA R (NEWR-I) NEW R	Sealing spacer for spacing apart two window panes, has desiccant which is set on top surface of fiber reinforced polymer, activatable sealant which is set on each of opposed side surfaces of fiber reinforced polymer
WO2021071386	(VSTO-I) VSTOVSKY V N	Window profile device for residential and public buildings, has outer portion in form of profile made from aluminum, and inner portion in form of profile made from polyvinyl chloride, which are interconnected by locking connection
JP2021060578	(NTTA) NITTA CORP (NTTA) NITTA KK	Light shielding component used in E.G. window glass, comprises polarizing plates, thermosensitive sheet containing side-chain crystalline polymer which crystallizes at temperature below melting point and shows fluidity above melting point
WO2021062478	(CLEA-N) CLEARVUE TECHNOLOGIES LTD	Device for generating electricity in office tower, has solar cells whose series is positioned along and in proximity of edge of panel, along area is transparent for portion of visible light and parallel light receiving surface of panel
WO2021069421	(INNO-N) INNOVY	Foldable system used in window of inner space of building, has honeycomb cells that are adapted to open when bar is moved in unfolding direction from folding side to bar side of frame preferably in completely unfolded configuration
EP3800314	(DECE-N) DECEUNINCK NV	Hinge assembly for door and window, has hinge provided with first hinge leaf fixed to fixed frame by first attachment units and second hinge leaf fixed to sash, where first attachment units are configured to extend through fixed frame
DE202019106637	(REHA) REHAU & CO AG	Window or door sash made of glass fiber reinforced polyvinyl chloride, comprises sash frame formed from sections of hollow chamber profile, and reinforcing element is received in hollow reinforcing chamber, and surface element
EP3800317	(SCHO) SCHUECO INT KG	Window installed in building, has ventilation duct which is formed in frame profiles of window frame or sash frame, and is provided with ventilation duct openings, and designed as multi-chamber hollow profile consists of plastic

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
RU202526	(PROM-N) PROMPROGRESS LLC	Profile for facade and window structures, has hook-shaped engagement elements in cross-section that are connected to engagement elements of polyamide connector-holders on which wooden overhead locking profiles are mounted

Automoción

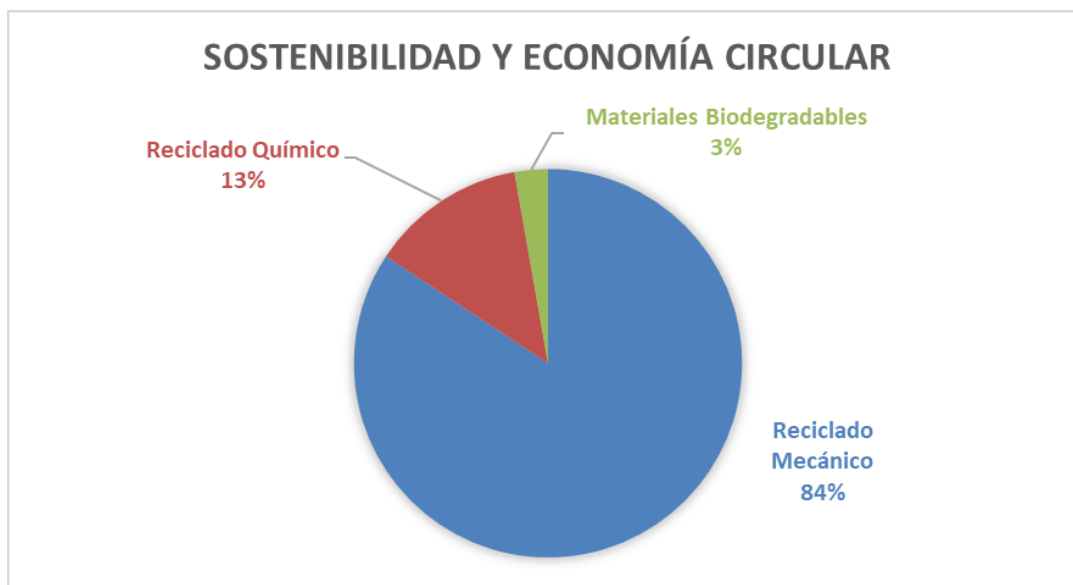
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2021188365	(WABA-N) WABASH NAT LP	Laminated composite structure for use in cargo vehicle for transporting multiple different types of cargo, has core layer having inner foam core surrounded by first fiber-reinforced polymer, and inner skin layer is coupled to core layer
JP2021084500	(INOA) INOAC CORP KK	Floor silencer for vehicles comprises skin material having foamed fiber sheet, and urethane foam which is foamed while the urethane foam raw material contacts one side of skin material and adheres with skin material
US2021146674	(GLDS) LG HAUSYS LTD	Manufacturing vehicle seatback cover involves manufacturing lightweight composite using reinforcing fiber and thermoplastic resin fiber, and forming lightweight composite into vehicle seatback cover shape
KR102259591	(SEOY) SEOYON E HWA CO LTD	Method for manufacturing lightweight cargo screen rear panel, involves laminating olefin-based film, and arranging metal bar on upper surface and lower surface as center, press-molded, pressing and trimming board compression trimming step
DE102019132557	(EADS) AIRBUS OPERATIONS GMBH	Vehicle seat for use in an airplane, includes seat shell that has a frame with two spaced-apart frame units, and seat shell has a holding element, and network-like structure has linear or band-shaped and intersecting fiber sections
DE102019132573	(BAYM) BAYERISCHE MOTOREN WERKE AG	Cross element for a support structure, has outer cover which includes upper side area and lower side area that are connected to one another through a lightweight structure, while cross element is curved in its longitudinal direction
EP3825447	(GOOD) GOODYEAR TIRE & RUBBER CO	Textile cord for tire comprises at least two yarns, each yarn having multiple filaments, where each of the filaments comprises polymer comprising polyethylene furanoate reinforced by carbon nanomaterial and boron nitride nanomaterial

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR102252261	(YISS-I) YI S	Non-woven fabric for attaching to rear of vehicle rear seat bag, has acrylic pressure-sensitive adhesive layer that is composed of determined units by weight of hardener is coated with area density of specific value on release paper
JP2021079790	(TOYW) TOYOTA CHUO KENKYUSHO KK (TOYT) TOYOTA JIDOSHA KK	Pillar structure for vehicles, has reinforcing unit that is provided on outer side and inner side of transparent unit to reinforce transparent unit, while securing transmission region for passing light in inside and outside of vehicle
KR102251728	(MOHE-N) MOHENIC MOTORS CO LTD	Platform of electric vehicle, has vehicle structure frame that is made of fiber-reinforced plastic material, and mount portion that extends vertically from upper surface of flange and coupled to battery pack
DE102020105309	(NSUM) AUDI AG	Roof of vehicle, has roof element that is made of fiber-reinforced plastic and acoustic insulation arranged on interior side of roof element, and insulation that is designed as fleece made of non-combustible fleece material
DE102019128262	(NSUM) AUDI AG	Pressure tank arrangement for a motor vehicle with collision detection feature, comprises a pressure tank that is installed for storing fuel and a pressure sensor is installed for detecting collision-related pressure fluctuations
DE102019006767	(HUPE-I) HUPERTZ A	Line protection element for air conditioning pipes, especially for boats, motorhomes and caravans, which has inner element and outer element, where inner element and outer element lying one inside other and having sectional line contact
KR20210030685	(WONP-N) WONPUNG IND CO LTD	Fiber composite material for manufacturing automobile engine dash outer, comprises E.G. first sound-absorbing nonwoven fabric layer made of polyethylene terephthalate nonwoven fabric coated with fluororesin
DE102019125313	(JENK-I) JENKEWITZ H	Vehicle such as mobile homes or caravans, has sandwich panel and replacement panel that have two outer skins with insulating layer, and reinforcement element or elements which are arranged on side of outer skins facing insulating layer
WO2021054398	(TOYM) TOYOBO KK	Foam molded article used in sound absorbing material, comprises thermoplastic polyester elastomer resin composition comprising thermoplastic polyester elastomers
DE102019124643	(PORS) PORSCHE AG F	Body arrangement for a motor vehicle with a tailgate, comprises rear body pillars with a cross element by a hinge connection arrangement, and rear body pillar is provided with the cross element in each case of a structural foam unit

VOLVER A
CONTENIDO

SOSTENIBILIDAD Y ECONOMÍA CIRCULAR

En el siguiente gráfico se muestra la distribución de las 1.584 familias de documentos de patente recuperadas en este trimestre en el apartado de Sostenibilidad y economía circular. Como se observa la gran mayoría se refieren al reciclado mecánico.



Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

Materiales Biodegradables

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021113966	(PLAN-N) PLANTEE BIOPLASTICS INC	Biodegradable polymer used for E.G. line of fishing gear, comprises polymer backbone, and pH-responsive moieties which are hydrophilic when exposed to aqueous solution of pro-biodegradation pH to hydrolytic degradation of monomeric units
WO2021111971	(YUPO) YUPO CORP	Biodegradable multilayer body used as filler, has core layer containing biodegradable resin, and barrier layers arranged on core layer, where core layer contains aliphatic polyester resin having repeating unit derived from aliphatic diol
JP2021091866	(KANF) KANEKA CORP	Tube used for E.G. straw, comprises poly (3-hydroxybutyrate) type-resins and polybutylene succinate adipate-based resin, and has preset thickness, yield point tensile elongation

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021112396	(HANW-N) HANWHA SOLUTIONS CORP	Biodegradable resin composition used for forming biodegradable film E.G. industrial film, food film, agricultural film and household film, comprises polyethylene, biodegradable resin, and polybutylene adipate terephthalate
WO2021100733	(KANF) KANEKA CORP	Laminate used as packaging container materials, comprises base material layer and laminate layer comprising poly(3-hydroxybutyrate) resin laminated on side of base layer
WO2021101094	(MARI-N) MARINE INNOVATION CO LTD (MARI-N) MARINE INNOVATION INC	Plastic bag for packaging and courier, is formed by mixing biodegradable polymer resin, seaweed and cassava, forming pellets, extruding and molding
GB2588950	(TORT-N) TOR CORP LTD	Producing biodegradable polymer nanocomposite by dispersing graphene nanoplatelets into matrix of biodegradable polymer, and extruding matrix of biodegradable polymer containing graphene nanoplatelets to obtain polymer nanocomposite
WO2021095023	(TORT-N) TOR CORP LTD	Reinforced biodegradable polymer nanocomposite for synthetic barrier film comprises polymer matrix and functionalized graphene nanoplatelets or graphene-like material having sheets that are functionalized with functional groups at the edges
WO2021085120	(KANF) KANEKA CORP	Manufacture of polyhydroxyalkanoic acid used for forming powder, involves spray-drying aqueous suspension containing polyhydroxyalkanoic acid and dispersant comprising block of poly(ethylene oxide) and hydrophobic group
WO2021079076	(CNRS) CNRS CENT NAT RECH SCI (UYPI) UNIV PARIS SUD (UYPI) UNIV PARIS-SACLAY	Composition used as patch for topical use, and for forming biodegradable stretch film E.G. biodegradable stretch food film in agri-food packaging sector, comprises konjac and carrageenan in preset mass ratio
JP2021054977	(MITA) MITSUI CHEM INC	Producing polysuccinimide for producing polyaspartate for skin care, hair care and body care cosmetics, by heat-treating dispersion liquid in which crude synthetic polysuccinimide is dispersed in solvent
WO2021060443	(NIOF) NOF CORP (TOKD) TOKYO INST TECHNOLOGY NAT UNIV CORP (TOKD) TOKYO INST TECHNOLOGY	Branched degradable polyethylene glycol derivative used for modifying bio-related substances in blood in living body, comprises oligopeptide that decomposes intracellularly in molecule
WO2021054013	(OJIP) OJI HOLDINGS CORP	Molding composition used for forming molded article, is obtained by mixing pulp fibers having preset cellulose purity and biodegradable resin in specified mass ratio
WO2021049637	(MITU) MITSUBISHI CHEM CORP	Biodegradable resin sheet used for forming biodegradable container, comprises surface layer, intermediate layer and back layer, where surface layer and back layer are biodegradable resin layers, and intermediate layer is gas barrier layer

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021102589	(EVOC-N) EVOCO LTD	Biodegradable foam used as automotive cushioning, comprises polyester-based polyurethane foam and soil-dwelling carbon-digesting bacteria or mixture comprising soil dwelling carbon-digesting bacteria embedded in carrier compound
EP3797948	(BICB) BIC VIOLEX SA (BICB) SOC BIC	Composition for handle of razor, comprises polylactic acid and bioplastic polymer mixture E.G. polybutylene adipate terephthalate, and vegetable filler E.G. wheat
KR101889224	(HARM-I) HARMJIYEON	Biodegradable resin composition used in pellet, comprises polylactic acid, polycaprolactone, cellulose nanocrystal as crystallization nucleating agent, 1,3:2,4-bis (3,4-dimethylbenzylidene) sorbitol, and talc as an inorganic filler

Reciclado Mecánico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR102264246	(THRE-N) 3SC CO LTD	Shredder for recycling transparent plastic, has sensor unit that is formed on one side of cylinder seating unit and guide panel to detect laser signal emitted from laser sensor for detecting when signal is not detected
WO2021106845	(WORK-N) WORKSTUDIO CORP	Method for recycling E.G. carbon-fiber-reinforced-plastics waste material in regeneration board material, involves molding regeneration board material with predetermined board thickness and predetermined board area using fiber material
BR102019019668	(GONC-I) GONCALVES R F (MEZA-I) MEZA A	System for solid waste traceability, has computational device for identifying solid waste through medium such as bar code reading, quick response code, image recognition and optical character recognition
WO2021097068	(UYAZ) ARIZONA BOARD OF REGENTS	Preparing treated plastic particles from waste plastic for modified binder by combining waste plastic particles with bio-oil to yield a mixture, and irradiating the mixture with microwave radiation to yield oil-treated plastic particles
WO2021096716	(ESSO) EXXONMOBIL CHEM PATENTS INC	Feeding plastic material into processor by conveying plastic material into feed hopper, supplying plastic material into melting tank, melting using melt pump and melting tank agitator, and supplying molten plastic material into processor

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
PL431581	(EKOM-N) EKOMBUD SP ZOO	System for removing heat-shrinkable labels from plastic containers, has separating unit that is arranged for separating cut containers and controlling unit that is arranged for controlling operation of specific system components
JP6872209	(ECOM-N) ECO MEBIUS KK (TSUR-N) TSURUOKA KK	Method for sorting and collecting recycled resources from wastes containing various types of plastic in automobile, involves dehydrating and drying suspended matter in tanks and recovering as raw material for chemical recycling and fuel
KR102251682	(HTWO-N) H2 INC (RMRM-N) RM CO LTD	Method for cleaning and sterilizing waste plastic PETs and PET flakes, involves cleaning and sterilizing recycled plastic material, and introducing PET selected in secondary optical sorter into optical sorter
WO2021089895	(UYEA) UNIV ALICANTE	Method for removing adhesives and/or interlaminar inks on laminated plastic material, involves microperforating laminated plastic material, and removing and/or adhesive by adding washing solution to microperforated plastic
KR102255888	(KOOO) KOREA OCEAN SCI & TECHNOLOGY INST	Marine plastic recycling device for purifying seabed of coastal or offshore, has inhaler for suctioning and removing foreign substances separated by pressure roll, and sensor unit for sensing operation of pressure roll
WO2020124110	(NEXT-N) NEXT GENERATION RECYCLINGMASCHINEN GMBH	Method for processing thermoplastic material, for its recycling, using processing system, involves conveying shredded plastic material in transfer area by first screw web directly inside envelope defined by screw web of extruder screw
EP3812120	(ARRI-N) ARRIVAL LTD	Method of recycling thermoplastic composite fabric, involves combining thermoplastic fabric offcuts to form recycled thermoplastic composite fabric and recycled thermoplastic composite fabric is precursor for making composite structure
WO2021072465	(PURE-N) PURELOOP GMBH	Device for processing material such as plastic material, has screw whose longitudinal axis is offset to longitudinal axis of extruder screw by offset in direction of direction of rotation of extruder screw
WO2021068083	(JEOS-N) JEOSAL MATERIALS RES CORP	Recovering of fibers and resin powder from fiber reinforced polymer material used to replace materials in industrial application, involves operating rotor to apply mechanical force to material and subjecting to selected temperature
US10814525	(VALG-N) VALGROUP SA	System for used in continuous liquefaction and filtration of plastic waste comprises a first device used to melt and filter solid waste plastic material to form molten plastic and second device to receive the molten plastic

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021058923	(AQOR) ARKEMA FRANCE	Recycling of to-be-recycled article E.G. industrial waste, involves introducing article into system for recycling thermoplastic polymer resin, preferably (meth)acrylic polymers, heating, and forming base monomers of thermoplastic polymers
EP3785873	(LOGO-N) LOGOPLASTE CONSULTORES TECNICOS SA	Recycling of thermoplastic polymer used for preform, involves shredding pre-treated polymer material to form polymer flakes, compacting flakes using disk agglomerator, partially crystallizing pellets, and processing polymer material
WO2021119602	(POLY-N) POLYCARBIN INC	Plastic waste recycling system for plastic elements of medical waste, has plastic waste processing system that is adapted to receive plastic waste from plastic waste receptacle and update plastic waste tracking system
WO2021068083	(JEOS-N) JEOSAL MATERIALS RES CORP	Recovering of fibers and resin powder from fiber reinforced polymer material used to replace materials in industrial application, involves operating rotor to apply mechanical force to material and subjecting to selected temperature

Reciclado Químico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20210067554	(LOTT) LOTTE CHEM CORP	Recycling of waste polyethylene terephthalate (PET) for forming bis(2-hydroxyethyl)terephthalate, involves melting waste PET, adding reaction solvent and depolymerization catalyst, and performing preliminary depolymerization reaction
KR20210058574	(LOTT) LOTTE CHEM CORP	Manufacturing polyester comprises performing reaction by mixing isophthalic acid and cyclohexanedimethanol, and melting mixture containing polyethylene terephthalate component and diol component other than cyclohexanedimethanol
WO2021094949	(GRTH-N) GR3N SAGL	Apparatus for depolymerization of polymers E.G. polyesters, has mixing device that is housed in reaction chamber and pressurization system that adjusts pressure inside reaction chamber both above and below atmospheric pressure
US2016122674	(ECOG-N) ECOGENSUS LLC (WHIT-I) WHITE B	Production of solid fuel composition used for high-efficiency pyrolysis, involves heating solid waste mixture comprising mixed plastics within process vessel, extruding, and cooling extruded solid waste mixture to obtain product

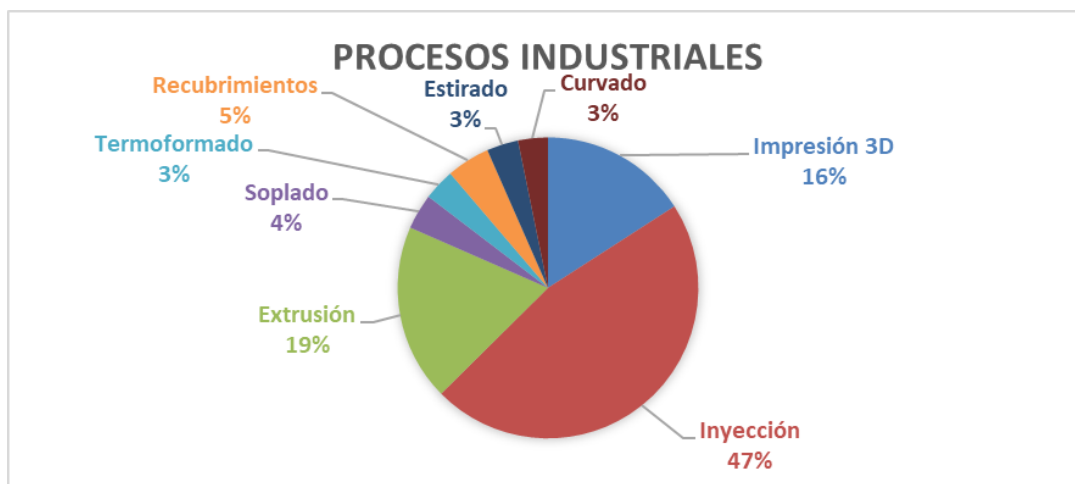
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021089803	(IONI-N) IONIQ A TECHNOLOGIES BV	Recycling waste material comprising condensation polymer, in solid form, comprises E.G. heating waste material constituting reaction mixture comprising solvent in reactor vessel and depolymerizing portion of condensation polymer
ES1264129	(U Y) EFESTO GREEN REACTORS S L [ES]	(U) Installation for recycling composite materials with fiberglass reinforcement. (Machine-translation by Google Translate, not legally binding)
WO2021092296	(EACH) EASTMAN CHEM CO	Processing of pyrolysis recycle content of cellulose reactant composition derived directly or indirectly from pyrolysis of recycled waste, involves feeding pyrolysis of recycled waste to reactor which is made of cellulose ester
WO2021080779	(EACH) EASTMAN CHEM CO	Producing polyester composition useful E.G. in toys comprises polycondensing resulting esterification product in third reaction zone and optionally adding additional recycled polyesters comprising E.G. recycled polyethylene terephthalate
US2021070958	(BASE) BASELL POLIOLEFINE ITAL SRL	Depolymerizing plastics, comprises introducing feedstock comprising plastic, mixing feedstock comprising plastic with catalyst I.E. halloysite to obtain reactant mixture and heating the reactant mixture to obtain product
WO2021089809	(IONI-N) IONIQ A TECHNOLOGIES BV	Reactor system for separating 1ST contaminant from feed stream, comprises depolymerization vessel for depolymerizing condensation polymer into monomer, dimer, trimer and/or oligomer, and separation stage having separation vessel
WO2021092288	(EACH) EASTMAN CHEM CO	Processing a recycle content aldehyde composition derived directly or indirectly from pyrolysis of recycle waste used for E.G., coating by feeding pyrolysis of recycle waste to reactor in which poly(vinyl acetal) composition is made
WO2021087052	(EACH) EASTMAN CHEM CO	System used to make pyrolysis oil comprises source of at least one recycled plastic waste, shredding unit configured to at least partially shred recycled plastic waste into shredded waste, separator unit, and pyrolysis unit
US2019390035	(NINE-N) 9449710 CANADA INC	Performing depolymerization of polyethylene terephthalate (PET) to form terephthalate involves admixing the polyethylene terephthalate (PET) with first solvent to yield first mixture and adding glycoxide to first mixture
WO2021081633	(UMCG) UNIV MCGILL ROYAL INST ADVANCEMENT	Depolymerizing polymer, by combining polymer comprising carboxy bond of ester or carbonate linkage with enzyme and liquid to obtain reaction mixture, and allowing enzyme-catalyzed reaction of enzyme with polymer by forming reaction product

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
GB2588414	(ROCK-N) ROCKFUEL INNOVATIONS LTD	System used for processing polymeric waste, comprises combustor arranged to burn polymeric waste, processing plant operatively connected to combustor, and optionally boiler having inlet for introducing water and outlet for releasing steam
WO2021054897	(UNUS) UNIV SINGAPORE NAT	Treatment of waste E.G. plastic waste, involves heating and pyrolyzing waste in presence of inert gas and carbon dioxide, catalytically dry reforming hydrocarbon mixture, and forming carbon nanomaterial from carbon monoxide and hydrogen
WO2021043991	(AQOR) ARKEMA FRANCE	Recovering and upgrading unsaturated hydrofluorocarbon from insulating foam, involves recovering composition comprising hydrofluorocarbon, depolymerizing foam, mixing recovered composition with composition to form stream, and separating
US2021070959	(BASE) BASELL POLIOLEFINE ITAL SRL	Depolymerizing polyolefins by adding polyolefin-based feed stream and metal oxide to reactor heated to predetermined temperature and reacting polyolefin-based feed stream with metal oxide to depolymerize polyolefin-based feed stream
WO2021107691	(LOTT) LOTTE CHEM CORP	Method for chemically recycling waste plastics by regenerating crystal filtrate, involves depolymerizing waste PET in reaction solvent to produce depolymerization solution containing BHET, BHET is crystallized in depolymerization solution
WO2021081633	(UMCG) UNIV MCGILL ROYAL INST ADVANCEMENT	Depolymerizing polymer, by combining polymer comprising carboxy bond of ester or carbonate linkage with enzyme and liquid to obtain reaction mixture, and allowing enzyme-catalyzed reaction of enzyme with polymer by forming reaction product
WO2021054897	(UNUS) UNIV SINGAPORE NAT	Treatment of waste E..G plastic waste, involves heating and pyrolyzing waste in presence of inert gas and carbon dioxide, catalytically dry reforming hydrocarbon mixture, and forming carbon nanomaterial from carbon monoxide and hydrogen
US2021054163	(PROC) PROCTER & GAMBLE CO	Degrading superabsorbent polymer to poly(acrylic acid), by flowing feed stream comprising superabsorbent polymer into inlet of extensional flow device and producing product stream comprising poly(acrylic acid) at outlet of device

VOLVER A
CONTENIDO

NUEVOS PROCESOS INDUSTRIALES

En el siguiente gráfico se muestra la distribución de las 15.945 familias de documentos de patente recuperadas en este trimestre en el apartado de Nuevos procesos industriales. Como se observa casi la mitad de ellos se refieren a los procesos de inyección.



Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

Inyección

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021120170	(JOIN-N) JOINTECH TOOLING & MOULDING TECHNOLOGY	Intelligent adjusting system for injection mold runner, has controller that is configured to control driving assemblies to drive intercepting blocks to control width of injection molding runner
WO2021124371	(DEON) DE LONGHI APPLIANCES SRL	Method for production of component made of plastic material, involves injecting second plastic material in second molding volume defined between first layer obtained in first injection step and second matrix with second operative parameter
WO2021118344	(THEU-I) THEUNISSE A M G	Method for producing gramophone records by injection molding, involves forcing liquid polymeric material under pressure through injection nozzle into space, and passing liquid polymeric material through single passage

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3835026	(MHTM-N) MHT MOLD & HOTRUNNER TECHNOLOGY AG	Multi-part core insert for injection mold for producing preforms, has fastening element and lower core portion designed such that fastening element is only fastened to lower core portion in one position or in several positions
WO2021107664	(LOTT) LOTTE CHEM CORP	Thermoplastic elastomer composition useful for double injection molded article, preferably handle, comprises styrene-ethylene-butylene-styrene block copolymer resins, maleic anhydride grafted polypropylene resin, and polyolefin resin
WO2021110722	(LEGO) LEGO AS	Injection-molding tool for mounting in injection-molding apparatus for automated molding of work pieces in plastics, has two flow channels until runner junction are straight and extending parallel to each other
JP2021084380	(MTSD) MITSUBA CORP	Injection molding apparatus for molding injection molded object, has encapsulation element which is attached to injection molded case that is molded by mold by first robot, when mold opening of fifth and sixth molds is detected
EP2984956	(ADID) ADIDAS AG	Support element for shoe sole, has second partial element which rotates or slides with first partial element in connection region by injection molding process
EP3827961	(SUMH) SUMITOMO HEAVY IND LTD	Injection molding machine for displaying on display screen of touch panel, has sacrificial portion that has surface fixed to surface and slides with other surface, and temperature adjustment mechanism adjusts sacrificial portion temperature
EP3826126	(SMAR-N) SMART WIRES INC	Method for operating impedance injection module (IIM) for reducing oscillations during impedance injection, by synchronizing rectangular impedance injection waveforms to form pseudo-sinusoidal waveform when injected onto transmission line
WO2021100665	(SUMH) SUMITOMO HEAVY IND LTD	Injection molding machine has controller that sets communication period, in which data is exchanged between superordinate and subordinate controllers, shorter than control period in which received data are used to perform prescribed control
WO2021081154	(SODA-I) SODANO H A	Producing reinforced polymer composite, involves initiating reaction of aromatic polyisocyanate by infusing catalyst composition, impregnating reinforcing solids with isocyanurate reaction mixture, and heating cavity defined by die
US2021107192	(KING-N) KING STEEL MACHINERY CO LTD (OTRA-N) OTRAJET INC	Injection-molding system comprises extruding system configured to produce mixture of polymeric material and blowing agent, and molding device configured to receive mixture from outlets and including hollow space

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3825092	(CVST) COVESTRO DEUT AG (CVST) COVESTRO INTELLECTUAL PROPERTY GMBH & CO	Method for improving injection molding process, involves determining applied process settings previously to injection molding process by computer simulation of injection molding process that is executed by computing apparatus
WO2021090766	(NIKL) JAPAN STEEL WORKS LTD	Anomaly sensing device used for sensing anomaly in ball screw provided in injection molding machine, comprises current sensor for detecting alternating current of motor providing ball screw with driving force and computation unit
JP6870722	(DAIK) DAIKIN IND LTD (DAIK) DAIKIN KOGYO KK	Manufacture of injection molded product E.G. sealing component, involves injection-molding copolymer using injection molding machine, melting copolymer containing tetrafluoroethylene unit, and filling space inside cylinder with inert gas
WO2021091191	(LSIN) LS MTRON LTD	Artificial intelligence-based injection molding system for use in manufacturing method of plastic products, such as TVs, mobile phones, comprises injection molding machine, injection state data acquisition unit, determination unit
WO2021089213	(FOBO-N) FOBOHA GERMANY GMBH	Injection molding device for manufacturing of composite products, has cavity that is provided in closed position of injection molding device forming compartment to receive liquefied plastic material and to form plastic component
WO2021087609	(TOPG-N) TOP GRADE MOLDS LTD	Stack mold carrier for injection molding machine, has lift support body which supports stack mold carrier which is arranged for installation on platen assembly as assembled unit, while first restraint system is arranged in first condition
WO2021084586	(DAIT-N) DAITEC CO LTD	Method for injection-molding E.G. lens for projecting image on screen, involves performing secondary-side half-portion molding process for injection-molding secondary-side half-portion on joining surface of primary-side half-portion
WO2021080518	(PTTP-N) PTT PUBLIC CO LTD	Purging compound for cleaning plastic processing machine, has virgin thermoplastic polymer and fluoropolymer component which has predefined value by weight of purging compound
JP2021070277	(SUMH) SUMITOMO HEAVY IND LTD	Lubrication system of injection molding machine, has discharge part that is provided to discharge lubricating oil from oil bath, and collection part that is configured to collect abrasion powder which retains inside of oil bath
WO2021077925	(HIER) HAIER SMART HOME CO LTD (HIER) QINGDAO HAIER REFRIGERATOR CO LTD	Injection molding method for producing E.G. rubber product involves injecting glue into the glue inlet based on the injection sequence queue while glue inlet is set closer to the first glue inlet at distance such that it is closer to front

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021078729	(MOEN-I) MOENS W C F	Automated in-mold label handling and product unloading device for use with plastic material injection molding machine, has y-axis motor is operated to retract label handling arm/product unloading arm from their respective extended position
WO2021074004	(CVST) COVESTRO INTELLECTUAL PROPERTY GMBH & CO	Method for shaping semifinished product from thermoplastic polymeric fiber-composite material in injection-molding machine, involves introducing molding material onto, around or behind shaped semifinished product
WO2021074148	(BADI) BASF SE	Injection molding tool of hydraulic injection molding machine for producing marbled molded portion E.G. household item, has two channels which partially form spiral and which are delimited by one-portion component
WO2021073905	(THER-N) THERMOPLAY SPA	Injection molding tool for producing thermoplastic material, has nozzle sleeve that is connected to cavity plate and/or nozzle plate, and nozzle sleeve and operative connection unit which are connected to one another in axial direction
DE102020127477	(WDTW-N) WDT-WOLZ-DENTAL-TECH GMBH	Method for producing cold and injection mold, involves using material such as organic material and organic constituents suitable for chemical, thermochemical and pyrolytic decomposition of cold and injection mold to be produced
US2021114271	(SYNV-N) SYNVENTIVE MOLDING SOLUTIONS INC (ANTU-I) DE OLIVEIRA ANTUNES S R (GALA-I) GALATI V (WARD-I) WARD D N (YANG-I) YANG L	Injection molding apparatus for performing injection molding cycle, comprises injection molding machine, and manifold receives injection material under pressure from injection molding machine, and mold has cavity and valve
DE102019127972	(OTTO-N) OTTO MAENNER GMBH	Injection molds for injection molding plastics and other thermoplastic materials, has a mold insert frame with multiple openings extending in an axial direction, each opening is used to house a mold insert which is used to enclose a cavity
US2021086423	(MLDM) MOLD-MASTERS 2007 LTD	Injection molding apparatus has thermal bridge that is in conductive thermal communication with valve pin seal, and in conductive thermal communication with cooled mold plate when injection molding apparatus is assembled
WO2021073797	(FOBO-N) FOBOHA GERMANY GMBH	Injection molding device for plastic and thermoplastic material, has central unit comprising lower portion and upper portion that are separated from each other by bearing arrangement arranged between upper portion and lower portion
EP3808641	(SELL-N) SELLE ITAL SRL	Method of making saddle involves arranging shell in thermoplastic polymer inside mold for injection molding and then making padding by injection molding thermoplastic polymer over shell between support surface and mold

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP2021059102	(TOXO) TOYO SEIKAN KAISHA LTD	System used for injection molding of polyethylene terephthalate (PET) bottle, has circumferential groove that is provided at tip of flow portion on injection port side, and injection port is closed by abutting on inner peripheral surface
WO2021066228	(GLDS) LG ELECTRONICS INC	Injection mold device for shortening the injection process time, comprises a cover template installed movably, and base template is positioned to be engaged with the cover template and first injection core is mounted on the cover template
EP3800035	(RAYT) CROMPTON TECHNOLOGY GROUP LTD	Method to manufacture monolithic fiber-reinforced polymer, involves arranging raised feature incur visually perceptible damage when component is subject and resist to impact with energy above and below predetermined impact energy threshold
EP3800031	(WITT-N) WITTMANN BATTENFELD GMBH	Method for injection molding an injection-mouldable thermoplastic material in injection molding machine, involves plasticizing the first material in plasticizing unit, and injection mold is injected while applying injection pressure
DE102019130792	(OTTO-N) OTTO MAENNER GMBH	Injection molding tool has coupling unit whose decoupled sub position is arranged in passage of main portion of coupling device partly arranged in decoupling recess, so that coupling device portions are decoupled from one another
WO2021056117	(NIIG-N) NIIGON MACHINES LTD	Injection apparatus for injection molding machine, has drive assembly whose housing provided with front end coupled to barrel and rear end axially opposite front end where spindle is in housing extended along axis and fixed to screw
EP3795275	(STOC-N) STOCCHIERO SRL	Mold with variable imprints used in injection molding, die casting for producing printed portions made of multiple material from plastic to biological material, metal, comprises plates as matrix, and punch define negative shape of portions
WO2021049848	(LSIN) LS MTRON LTD	Injection molding system based on artificial intelligence for creating molding conditions for manufacturing plastic products such as television, comprises standard data extracting unit for extracting target standard data of product
WO2021062523	(HUIN) HUSKY INJECTION MOLDING SYSTEMS LTD	Injection molding system for supporting and using hydraulic circuit, has controller that does not decrease variable pressure setpoint from reduced variable pressure setpoint until pump assembly operates for several stabilizing cycles
EP3797966	(SIMO-N) SIMOLDES PLASTICOS SA	Device for automatically trimming injection molding gate of molded product obtained by injection molding in mold, has feeding slider that is movable from injection position arranged against mold opening

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021060501	(SUMH) SUMITOMO HEAVY IND LTD	Injection molding machine has data transmission unit that is configured to transmit data acquired by each of data-acquisition units to predetermined external device in state which compared in time series for every data type
JP2021045938	(NSSK) NISSEI JUSHI KOGYO KK (NSSK) NISSEI PLASTICS IND CO LTD (HAKO-I) HAKODA T (OGAS-I) OGASAWARA M	Injection molding apparatus has control unit to stop operation of injection molding machine when mold displacement change is produced or abnormality in injection peak pressure and abnormality in injection most advance position are produced
EP3797964	(PRES-N) PRESSPART MFG SA	Injection molding tool for manufacturing nozzle block of metered dose inhaler unit, has pin which rests against tool section upon forming nozzle block of metered dose inhaler unit through injection molding and is movable against portions
JP2021045901	(SHIH) SEIKO EPSON CORP	Injection molding system for manufacturing molded article, installed in factory, has housing whose inside is equipped with injection molding machine, material supply apparatus, thermostat, drying machine and controller
WO2021050187	(CARL-N) CARLISLE CONSTR MATERIALS LLC	Method for controlling operation of tire filling mixing machine, involves comparing measured ratio of ground core bite bits to virgin polyurethane to pre-stored preferred ratio of ground core bits to virgin polyurethane

Extrusión

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2021146589	(EXTR-N) EXTRUNET GMBH	Extrusion die for producing a plastic profile, has recess arranged for accommodating exchangeable air nozzle inserts, and air supply bore extended from connection on outer side of die plate into each of recess
EP3831570	(REHA) REHAU & CO AG	Method for producing plastic profile, involves providing window or door hollow chamber profile, by modes of an extrusion process, and plastic melt is passed through an extrusion tool during extrusion process for profile shaping
EP3831568	(SWAE) SWATCH GROUP RES & DEV LTD	Method for in-line marking of substrate made of synthetic material obtained from extrusion die such as watches strap, involves extruding synthetic material through an extrusion die to form the substrate that is marked by scrolling substrate

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021104841	(ALEP-N) ALEPH	Method of manufacturing a bubble film by a film forming apparatus, involves forming the bubble film by extrusion through a die, while measuring a transverse profile of an additive quantity characteristic of the bubble film
WO2021107332	(GLDS) LG CHEM LTD	Extrusion apparatus for extruding a raw material in a solid-state containing moisture, has a barrel having a hollow tubular shape along a longitudinal direction, a hopper into which the raw material is inputted is coupled to one side
WO2021108234	(CORG) CORNING INC	Green ware handling system of extrusion system, has back end assembly configured to contact portion of back end face of green ware and moveable to push green ware, and head end assembly configured to engage leading end of green ware
EP3827962	(MINN) 3M INNOVATIVE PROPERTIES CO	Extrusion apparatus for forming foamed polymeric compositions, has static cooling mixer equipment that is arranged downstream of melt pump and foaming equipment is arranged downstream of static cooling mixer equipment
EP3825353	(REIK) STOROPACK REICHENECKER GMBH & CO HANS	Product made of expanded plastic material comprises expanded plastic material comprising expanded plastic particles adhering to one another and having groups of micro-cavities with different diameter ranges
WO2021086787	(CRUZ-N) CRUZ FOAM INC	Method for performing foam extrusion for use in organic polymer processing, involves feeding a solvent into an extruder system, feeding chitosan oligosaccharide into the extruder system, and feeding dispersed phase into the extruder system
US2020223118	(OTRA-N) OTRAJET INC	Extruding system for extruding mixture of polymeric material and blowing agent, has flow control element which is arranged between mixing unit and injection unit and control flow of mixture from mixing unit to injection unit
WO2021089731	(TEKN-N) TEKNOWEB MATERIALS SRL	Web forming apparatus adapted to form commingled web I.E. used to make a wipe, comprises particulate material, and the apparatus comprises particulate material supply system, polymer supply system, a forming box, and a collector
EP3812123	(WRSW-N) WRS GMBH	Calibrating device for use in extrusion system for plastic pipes, has adjustment device that is arranged for continuously adjusting inner diameter of calibration sleeve with inner diameter and comprised with cable adjustment unit
WO2021079413	(NIKL) JAPAN STEEL WORKS LTD	Die for extruder for manufacturing pellets, has first heat insulating layers whose portion extends in direction from extrusion surface to injection surface at position farther from second nozzle than first heat source

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102019215876	(GREI-N) GREINER EXTRUSION GROUP GMBH	Extrusion device for plastic profile such as hollow chamber profile, has process monitoring device which detects process parameter in front of extruder, extrusion nozzle, calibration device, take-off device and cutting device
DE102019127777	(REIF) REIFENHAEUSER GMBH & CO MASCHFAB	Device for co-extruding multi-layer coextrusion composite made of interconnected individual layers, includes coextrusion adapter having central channel producing central layer of coextrusion composite
DE102019127550	(WINM) WINDMOELLER & HOELSCHER KG	Method for a model-based optimization of a film product during manufacture on a film extrusion system, involves acquisition of two model parameters in form of input parameters of production model to predict a production situation
DE102019127707	(BATW) BATTENFELD-CINCINNATI GERMANY GMBH	Component for an extrusion line, has a tool or a unit, component is provided in particular for cooling the melt and/or for homogenizing the melt, component of complex construction and consisting of a large number of individual units
WO2021074819	(SCMI) SACMI COOP MECCANICI IMOLA SA	Co-extrusion head used in co-extrusion plant, has narrowing unit whose intercepting elements are positioned and act in same plane which is transversal to plane in which active components of shaped elements are positioned and act
EP3804934	(CVST) COVESTRO DEUT AG (CVST) COVESTRO INTELLECTUAL PROPERTY GMBH & CO	Extruder for use in degassing, of plastic masses, has large pitch screw element that is eccentrically drawn on axis of rotation of screw shaft immediately in conveying direction at least one low pitch screw element
DE102020212987	(REIF) REIFENHAEUSER GMBH & CO MASCHFAB	Melt distributor for extrusion tool of extrusion plant for distributing plastic melt E.G. polymer melt, has melt channels whose cross-sectional shape and diameter are selected in way that flow resistance for plastic melt remains identical
DE102019127548	(WINM) WINDMOELLER & HOELSCHER KG	Control method for checking portion of production process of film extrusion plant by production model, involves generating control value as specification for input parameter of parameter relationship that is established
DE102019127836	(UNIC-N) UNICOR GMBH RAHN PLASTMASCHINEN	Apparatus for production of preferably corrugated plastic pipe from plastic melt hose, comprises extruder to produce plastic melt hose, extrusion head for connection to extruder, multiple molding jaws, and cooling mandrel
DE102019127545	(WINM) WINDMOELLER & HOELSCHER KG	Method for model-based determination of parameters of production model of film extrusion plant, involves acquiring two model parameters in form of input parameters, and parameter relationship between recorded model parameters is formed

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP2021054011	(NIKL) JAPAN STEEL WORKS LTD	Extruder for resin, has rotor type screw placed in cylinder and mountain top portion of flight is formed so that gap between mountaintop portion and inner surface changes from point forward of rotation direction toward back point
DE102019127042	(REHA) REHAU & CO AG	Method for monitoring wear and/or contamination phenomena in a plastic extrusion plant, involves mounting an extruder screw housing, while measuring plastic discharge flow in the form of the mass discharge of plastic
US2021046689	(BRKM) BRUCKNER MECHANICAL ENG GMBH & CO KG (BRKM) BRUECKNER MASCHBAU GMBH & CO KG	Installation used for producing polymer melt for porous films, comprises planetary roller extruder for producing flowable polymer melt, and melt pump, where discharge side of planetary roller extruder is connected to downstream inlet side
EP3789428	(XERO) XEROX CORP	Melt-emulsion extrusion for forming thermoplastic polymer particles, involves mixing thermoplastic polymer, carrier fluid, cooling to lower temperature to form solidified particles and separating from carrier fluid

Soplado

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021110594	(ALPL) ALPLA WERKE ALWIN LEHNER GMBH & CO KG	Blow molding tool for use in forming a container, comprises a molded body which has a cavity as a mold cavity while the cavity having a bottom region, a central region and a head region
WO2021106358	(YACH) YACHIYO IND CO LTD	Blow molding machine for manufacturing resin liner for pressure vessel, has ring portion whose shape of inner circumferential surface is transferred to outer peripheral surface of tip portion of neck portion to obtain smooth surface
FR3103131	(SIDL) SIDEL PARTICIPATIONS	Method for orienting an axisymmetric preform of axis, particularly a preform made of thermoplastic material, in a mold for forming a blow molding machine, involves installing a preform in a cavity of a mold
DE102019131188	(KROE) KRONES AG	Device for forming plastic preforms into plastic containers with proportional valve, comprises a blow molding device, within which the plastic preforms are fed to the plastic containers by exposure to a flowable medium
WO2021084464	(DIED-I) DIEDLOFF M	Polyethylene-based blown film useful in manufacturing clear recyclable packaging film on horizontal form-film-seal machine, comprises E.G. three co-extruded layers comprises core layer, inner seal layer, and outer layer

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102019129845	(MEIS-N) MEISSNER MODEL & MFG AG (MEIS-N) MEISSNER MODELL & WERKZEUGFABRIK AG	Blow mandrel device for blow molding of blow molded component, has swivel unit which is provided for swiveling blow pin unit from preset position into different specific position relative to holder
WO2021074698	(BRKS) BRASKEM SA	Blow molded article for preparing packages, bottles, or drums, comprises layer comprising blended ethylene-based polymer composition comprising post-consumer resin (PCR) and virgin resin, E.G. high density polyethylene
JP2021059363	(MITN) MITSUBISHI GAS CHEM CO INC	Manufacturing multilayer container for E.G., foodstuff, by biaxial-stretching blow-molding a preform which has layer containing polyester resin and layer containing polyamide resin comprising diamine and dicarboxylic acid structural units
WO2021060196	(NASB) NISSEI ASB MACHINE CO LTD	Blow molding apparatus E.G. manufacturing apparatus for blowing mold resin-made containers, has preform that includes second lock portion which regulates motion to first direction of second drive portion in second position
DE102019126397	(KAUT) KAUTEX MASCHBAU GMBH	Closing unit for blow molding machine, has lower mold portions that is releasably connected to output of first actuator and other of two lower mold portions that is releasably connected to output of second actuator
WO2021054403	(NASB) NISSEI ASB MACHINE CO LTD	Blow molding device for use in manufacturing of resin container, has air tank that supplies cooling air to temperature adjustment unit, and collecting unit that collects blow air released from blow molding unit into air tank
WO2021053140	(SIDL) SIDEL PARTICIPATIONS	Station for forming containers in thermoplastic material, comprises unit for molding containers by blowing preforms gallows in which blowing device is movable in translation relative to bracket between two extreme stable positions
FR3100474	(SIDL) SIDEL PARTICIPATIONS	Method for manufacturing containers by blow molding or stretch blow molding from plastic preforms, involves cooling a base of the mold by circulating a heat transfer fluid, where base of a mold is carried out with a heat transfer fluid

Termoformado

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP3838612	(PLAS-N) CIE PLASTIC OMNIUM SE	Method for manufacturing vehicle unit, such as headlamp for motor vehicle, involves providing application of first layer of paint on side of solid unit with heating first layer of paint with providing laser radiation
EP3838552	(SOFT-N) SOFTFORM LTD	Tool for thermoforming container from thermoformable material has lower face of plug that is shaped so that surfaces of base between adjacent recesses are formed with inclined run-off ramp to enable liquid on base to drain into recesses
WO2021110536	(FRAU) FRAUNHOFER GES FOERDERUNG ANGEWANDTEN EV	Method for use in producing a formable thermoplastic, involves embedding a continuous fibers in a matrix of thermoplastic material while a composite structure semifinished product is provided with the two layers
WO2021107865	(UYTU) UNIV NANYANG TECHNOLOGICAL	Method of forming fiber for fiber actuator, involves subjecting preform to thermal drawing process to draw preform into fiber, and applying compressive force to sections of fiber along length of fiber at intervals
WO2021097525	(VARD-N) VARDEN PROCESS PTY LTD	Tool for use in thermoforming process to form molded product from wet pulp fiber material, has actuator assembly is operable to displace displaceable mold and includes actuator to effect displacement of displaceable mold
FR3102704	(VALO) VALEO SYSTEMES THERMIQUES	Method for obtaining a wall for a housing of an installation for heating and/or ventilation and/or air conditioning of a motor vehicle, involves positioning film of the second material in a position which is predefined placement in a mold
EP3812139	(ARRI-N) ARRIVAL LTD	Method of manufacturing composite part used in electric vehicles, involves creating pressure differential across composite precursor material to conform composite precursor material to mold
EP3812124	(STAY) STANLEY WORKS ISRAEL CO LTD (STAY) STANLEY WORKS ISRAEL LTD	Method for manufacturing object such as container, involves thermoforming planar portion of first panel of perform into protruding element in selective manner such that second panel is not thermoformed
EP3808535	(CMSC-N) CMS SPA	Method for moving product made of thermoformable plastics in sheet or slab form by cogged conveying portion, involves moving first guide portion of thermoforming apparatus, and facing first face of product along first direction
WO2021075375	(KYKO) KYORAKU CO LTD	Panel-shaped molded article used as vehicle interior component, consists of core material, reinforcement material for sticking on section of front surface or back surface of core material, and resin sheets as outer skin material

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102019127108	(KURZ) KURZ STIFTUNG & CO KG LEONHARD (POLY-N) POLYIC GMBH & CO KG	Method for producing plastic component to accommodate display, involves applying sensor film to one area of surface of film, reshaping film comprising sensor film, and punching out film elements formed from area of reshaped film structures
EP3808534	(CMSC-N) CMS SPA	Thermoforming apparatus for thermoforming plate or sheet materials, has drive units that include motor, and wheel which is coupled with counteracting element of respective upright, and drive units cooperate together to move frame
EP3804960	(WMTH-N) WM THERMOFORMING MACHINES SA	Continuous thermoforming machine has sheet transport system to transport continuous thermoformable sheet through machine, forming station for thermoforming articles in sheet, and laser station for subsequent processing of articles
EP3797968	(GUEL-N) GUELT SAS	Packaging machines for performing with thermoforming, sealing, and cutting of containers used for food products, which has frame, and thermoforming station, where thermoforming station has unwinding unit of thermoforming film
WO2021050508	(NANO-N) NANOTRONICS IMAGING INC	System for multi-step manufacturing process, has control module that adjusts processing parameters of multi-step manufacturing process to achieve desired final quality metric for product and adjusts control logic for following station

Recubrimientos-No

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021099447	(SOLV) SOLVAY SPECIALTY POLYMERS USA LLC	Novel poly(aryl ether) polymer for formulation used for manufacture of three-dimensional article or objects with additive manufacturing system by stereolithography technology, ink-jet process, direct ink writing, or digital light processing
DE102019218844	(CONW) CONTITECH SCHLAUCH GMBH	Method for producing heatable hose, for fixing device, involves applying fixing element to base portion, and interrupting application of fixing element to base portion and electrical conductor at main position and continuing at sub position
WO2021111205	(ECOS-N) ECOSYS SRL	Apparatus for applying adhesive film on substrate surface, has work head which comprises reversible holding units adapted to reversibly hold adhesive film on first contact portion and optionally on second portion of work surface

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2021167629	(HAMI-I) HAMILTON D	Laser energy absorbing and distributing system for stationary energy collection and storage farm, has source sensor array for monitoring environment for source, and channeling array for guiding energy from source to energy receptor array
EP3825098	(WTIP-N) W-TIP GMBH & CO KG	Manufacturing device for performing lamination of top fabric on vehicle component, includes transport system moves on floor surface, and holding device for gripping outer fabric and pressure chamber that is delimiting by elastic membrane
WO2021100344	(SHNA) SHONAN GOSEI JUSHI SEISAKUSHO KK	Apparatus for reversing lining material, has seal valve that is displaced to direction in which opening of second opening portion is sealed in response to hydraulic pressure of liquid that is provided to flow out into second opening portion
WO2021101392	(TRAV-N) LA TRAVIATA LTD	Apparatus for modifying an edge of an object, includes a first edge and an adjacent second edge, a fixed structure to which the object is mounted, a chassis movable relative to the fixed structure, a roller, and a motor
FR3102710	(COMP) SAINT-GOBAIN GLASS FRANCE	Laminated glazing used to deposit peripheral seal or gasket includes first sheet of glass, second sheet of glass, lamination spacer in adhesive contact with the sheets of glass, stack of layers with metallic functional layer and seal
EP3819105	(TSUD) TSUDAKOMA CORP (TSUD) TSUDAKOMA KOGYO KK	Automatic lay-up device used for preventing poor quality of fiber, has drive controller that controls driving of driving mechanism to start moving pressing device when cutting end of thermosetting prepreg reaches position of pressing device
DE102019129804	(SURT-N) SURTECO GMBH	Method for production, transport and processing of edge strips of limited length as bar goods, involves automatically removing edging strips in processing system one after other with removal device from respective module cassette
GB2588641	(BARN-I) BARNES S	Liner for lining host pipe for corrosion prevention, has barrier layer that surrounds inner polymer pipe, inner polymer pipe that is porous, and inner polymer pipe that comprises preset hydrophobic or hydrophilic material
DE102019216480	(CITR) PSA AUTOMOBILES SA	Device for applying film to object, has first holder that is movable with respect to object holder along first direction, and second holder that is movable with respect to first direction and second direction with respect to first holder

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021080091	(DONG-N) DONGSUNG FINETEC CO LTD	Membrane sheet for a liquid natural gas storage tank, comprises a multiple of first wrinkles formed in parallel with each other, and a multiple of second wrinkles formed in parallel with and perpendicular to the first wrinkles
EP3808538	(TESA) TESA SE	Method for automated removal of protective paint film from surface of main portion, involves continuing relative movement of unmasking device and main portion to one another until adhesive strip is completely peeled off from main portion
US2021053274	(LOON-N) LOON LLC	Aerial vehicle has envelope material whose fifth layer is adjacent to fourth layer and envelope material whose sixth layer corresponding to folded portion of fifth layer of envelope material is adjacent to fifth layer of envelope material
WO2021074752	(ALTE-N) ALTEXA SRL (MACP-N) MACPI PRESSING DIV SPA	Device for applying film to three-dimensional article, has inflatable shape that is configured for pressing against article, and adhering to article in inflated configuration, and film that is interposed between inflatable shape and article
DE102019128542	(ENDR) ENDRESS & HAUSER FLOWTEC AG	Producing measuring tube for magnetically inductive flow measuring device comprises providing carrier tube, forming liner in lumen of carrier tube, and attaching sensor element to support tube
WO2021071730	(SILV-N) SILVERPACK LLC	Tubular irrigation device E.G., irrigation pipes comprises multilayer polymeric sheet comprising outer layer having layers of woven polymeric thermoplastic material and inner layer having multilayer polymeric thermoplastic film
US2021060847	(PICO-N) PICOTE SOLUTIONS LTD OY	Device for preparing liner to be installed in pipe, has top rollers, where one of roller movably attached to first top side and second top side, and bottom rollers where one of roller movably attached to first and second bottom side
WO2021065101	(TOYM) TOYOBO KK	Apparatus for manufacturing laminate comprises second sheet coated with silane coupling agent, and laminating device for attaching first sheet and second sheet which have been supplied with aqueous medium
WO2021059929	(ASAG) AGC INC	Manufacturing method of heat insulation element installed in ceiling of vehicle, involves arranging vacuum heat insulating material between molds, and bend-forming core material and outer cover material along curved surfaces

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021048591	(WELL-N) WELLTEC MACHINERY LTD	Self-weighted diaphragm clamping mechanism for use in a coating machine, comprises a workbench that is composed of diaphragm upper pressing plate, diaphragm carrying plate, stopping plate, and base, which are mounted within sealed chamber
DE102019213905	(FRAU) FRAUNHOFER GES FOERDERUNG ANGEWANDTEN EV	Method for producing E.G. fiber-reinforced plastic component, involves curing polymeric matrix material and removing grid or gauze by peeling off so that surface with increased roughness is obtained and between which fiber layers are formed
DK201970519	(BLUE-N) BLUE WORLD TECHNOLOGIES HOLDING APS	Method for producing separator plate, involves kneading EOF at kneading temperature above glass transition temperature, and hot-compacting sheet in press-form for forming separator plate

Estirado

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP2021081583	(NITL) NITTO DENKO CORP	Method for manufacturing polarizing film used in LCD device, involves controlling peripheral speed of first tension cut roll, so that tension measured by tension meter becomes predetermined value is included
WO2021090692	(SUMO) SUMITOMO CHEM CO LTD	Manufacture of film roll used for image display apparatuses, involves unwinding film, transporting unwound film, gripping and drying film, releasing grip after drying, producing dried film roll using stretching device, and winding film
WO2021079255	(NVCH) NOVA CHEM INT SA	Biaxially oriented polyethylene film used in variety of packaging applications, comprises medium density polyethylene
DE102019215875	(WINM) WINDMOELLER & HOELSCHER KG	Method for starting film production in blown film machine with control device, involves capturing start request, setting of start parameters, providing foil material, starting film production, and setting of film production parameters
WO2021065596	(TOYM) TOYOBO KK	Heat-shrinkable polyester film roll obtained by winding heat-shrinkable polyester film on paper tube, where film has primary shrinkage direction that is longitudinal direction
WO2021063641	(ALEP-N) ALEPH SAS	Process for manufacturing a film, involves extruding the polymer in a production line equipped with actuators of adjusting characteristics of the extruded film, and the mapping function of the film is established for the first sensor

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021044916	(JAPG) ZEON CORP	Method for manufacturing polarizing film, involves dyeing multilayer thing by dichroic substance, conveying multilayer thing to longitudinal direction, extending multilayer thing in width direction, and orientating multilayer thing

Curvado

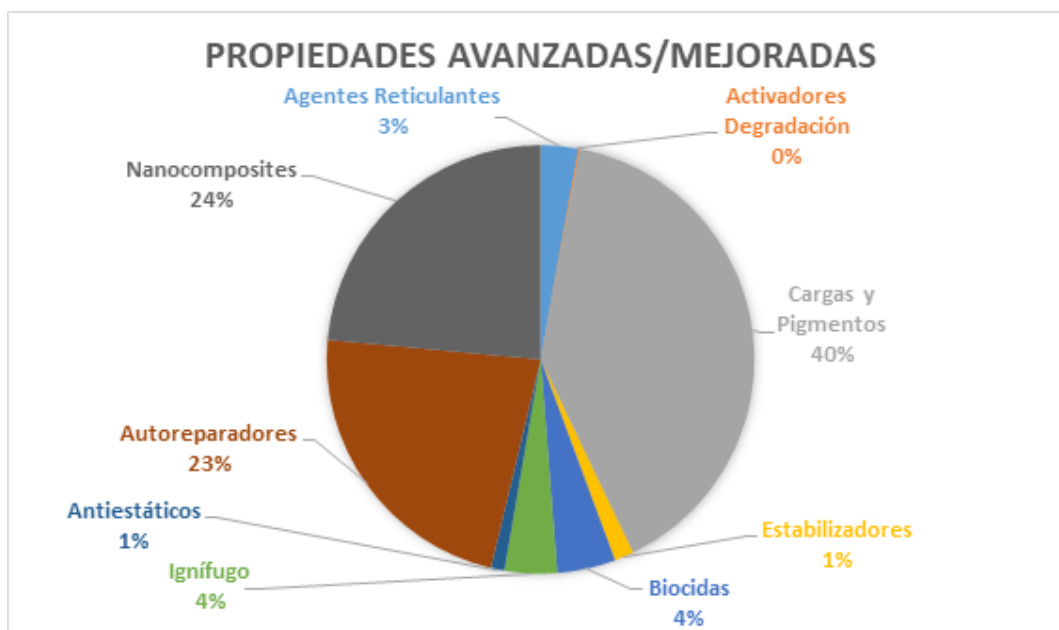
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021125937	(FIBE-N) FIBERCORE IP BV	Product such as panel for reinforced composite construction E.G. bridge deck, has sheet that extends with non- zero component in negative specific direction back towards specific surface and covers specific lateral portion of adjacent sheet
WO2021106070	(MITO) MITSUBISHI HEAVY IND CO LTD	Molding apparatus for fiber sheet laminate, has control unit that controls press adjustment unit such that interlayer adhesive force of non-bending region becomes stronger than interlayer adhesive force of bending region
WO2021095097	(MITO) MITSUBISHI HEAVY IND CO LTD	Molding apparatus for molding carbon fiber reinforced plastics used in fuselage structure of aircraft, has control unit that synchronizes position of roller and position of gripping unit with each other to control roller driving unit
WO2021096062	(GLDS) LG CHEM LTD (GLDS) LG ENERGY SOLUTION LTD	Apparatus for bending flexible printed circuit board, includes die that has horizontal body and support wall for accommodating battery cell, and rotating body is connecting to fixed body and rotatable at predetermined angle
EP3815878	(ROHR) ROHR INC	Method for forming reinforced thermoplastic structures, involves compressing thermoplastic panel between third and fourth tools while thermoplastic panel is at forming temperature and bent about second axis extending along second direction
WO2021087150	(MAGA-N) MAG AEROSPACE IND LLC	End ring for use in filament winding pressure vessel, has outer flange and platform that supports spike having multiple spikes, which comprising base dimension and tapered portion and tapered portion end at point
WO2021070632	(TEIJ) TEIJIN LTD	Manufacture of curved component used in E.G. electronic applications, involves E.G. preparing hard-coated polycarbonate resin laminate for heat bending and containing penetration layer having preset thickness and hard coat layer

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2021114316	(ARRI-N) ARRIS COMPOSITES INC	Method for continuous fabrication of fiber-bundle-based and tape-base preforms, involves winding a first length of a constituent material around a mandrel, and removing the constituent material from the mandrel
EP3795330	(RORO) ROLLS-ROYCE PLC	Method for manufacturing an integral thermoset infused fiber-reinforced composite, structural stator vane ring for a core inlet, involves winding fiber reinforcement material around a mandrel to form an inner annulus preform

VOLVER A
CONTENIDO

MATERIALES CON PROPIEDADES AVANZADAS O MEJORADAS

En el siguiente gráfico se muestra la distribución de las 676 familias de documentos de patente recuperadas en este trimestre en el apartado de Materiales con propiedades avanzadas o mejoradas. Como se observa más de la mitad se refieren a los nanocomposites.



Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

Cargas y Pigmentos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021119419	(PITT) PPG IND OHIO INC	Composition for treating substrate comprising E.G. automobile or aircraft, comprises thiol-terminated compound, oxidant, and thermally conductive filler package comprising thermally conductive, electrically insulative filler particles
KR20210064459	(KOCA-N) KOREA CARBON IND PROMOTION AGENCY	Manufacturing thermoplastic resin-based thermally conductive masterbatch comprises performing in-situ polymerization by mixing thermal conductivity filler with solution containing thermoplastic resin monomer

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20210060701	(KETR) KOREA ELECTRONICS TECHNOLOGY INST	Photocurable composite resin composition useful for 3D printing comprises stretchable photocurable resin and inorganic particles surface-modified with silane compound-based surface modifier after synthesizing by Stover method
JP2021080356	(POPL) POLYPLASTICS KK	Improvement of tracking resistance of polybutylene terephthalate resin composition for electric and electronic components, involves blending carbodiimide compound with resin composition, and measuring comparative tracking index
WO2021085593	(MITU) MITSUBISHI CHEM CORP	Resin composition used for forming cured material, comprises inorganic filler comprising aggregated inorganic filler, thermosetting resin comprising epoxy resin, and thermosetting catalyst having preset melting point
WO2021086019	(GLDS) LG CHEM LTD	Thermoplastic resin composition used for automobile parts or electric and electronic parts and molded article, comprises thermoplastic resin, carbon fiber, carbon nanotube, plate-shaped graphite and metal fiber
DE102019129551	(KULZ) KULZER & CO GMBH	Polymerizable composition useful to produce polymerized composition through additive manufacturing processes, comprises inorganic filler component, urethane acrylate having urethane acrylate, functional monomer, and initiator
KR20210048083	(GLDS) LG CHEM LTD	Composition having improved durability even at high temperatures useful in adhesive for encapsulating semiconductor, comprises epoxy resin, silane coupling agent modified with terminal carboxylic acid, inorganic filler, and solvent
DE102019129040	(WOCO) WOCO GMBH & CO KG	Flame-retardant thermoplastic composition used for forming molded product, comprises thermoplastic polymer, inorganic filler, metal hydroxide flame retardant, boron-containing compound, and optionally additive containing heat stabilizer
JP2021063180	(SAKB) OTSUKA CHEM HOLDINGS CO LTD	Dispersant composition used in coloring composition, comprises block copolymer containing block comprising quaternary ammonium-based structural unit and amine-based structural unit, aromatic compound, and tertiary amine compound
KR102249171	(SOOP-I) SOO P Y	Resin composition having improved mechanical properties and processability useful for producing biodegradable film, comprises E.G. polylactic acid, inorganic filler, and mixed component of succinic acid, glutaric acid, and adipic acid
KR102246484	(JANG-I) JANG J	Additive composition useful for improving processability by preventing gelation inhibition during molding of polyketone resin, comprises hydroperoxycyclohexane-based compound or hydroperoxybutanyl-based compound

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20210047752	(GLDS) LG CHEM LTD	Thermally conductive composition for heat dissipation pads, electronic device, heat sink, radiating fin, radiating pipe and radiating pad, comprises silicone resin, a filler and titanate-based coupling agent
WO2021060764	(AMOT) AMOGREENTECH CO LTD	Radio-frequency heat dissipation plastic used for repeater enclosure, comprises polymer matrix formed including main resin and hollow filler dispersed in polymer matrix
WO2021066488	(GLDS) LG CHEM LTD	Polypropylene-based composite material used as interior and exterior material for automobile, comprises polypropylene, and olefin-based polymer having preset melt index, melting temperature, and high-temperature melting peaks
WO2021066556	(LOTT) LOTTE CHEM CORP	Thermoplastic resin composition for molded article, comprises polycarbonate resin, rubber-modified aromatic vinyl-based graft copolymer, aromatic vinyl-vinyl cyanide copolymer and bis-octadecyloxy-tetraoxa-diphospha-spiro undecane compound
JP2021055032	(NIRA) UNITIKA LTD	Semi-aromatic polyamide resin composition used in molded product for civil engineering and construction supplies, comprises semi-aromatic polyamide comprising aliphatic diamine component, impact resistance improver and reinforcing material
WO2021059936	(SHIE) SHINETSU CHEM CO LTD	Thermally conductive silicone composition used for semiconductor device, contains organopolysiloxane, and zinc oxide particles having preset average particle diameter and containing coarse powder, and adhesion promoter
JP2021038298	(SUMO) SUMIKA POLYCARBONATE LTD	Flame-retardant polycarbonate resin composition used for forming molded article, comprises polycarbonate resin, polyarylate resin, silicone compound, phosphate ester flame retardant and filler

Reticulantes

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20210037450	(GLDS) LG CHEM LTD	Manufacture of super absorbent polymer for E.G. diaper, involves preparing hydrogel polymer using E.G. monomer composition containing internal crosslinking agent, adding reducing agent comprising bisulfite, sulfinate or its salts and mixing

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20210027999	(ZHAN-I) ZHANG Z	Complex adhesive film useful for photovoltaic cell assembly comprises mixture of ethylene vinyl acetate and an ethylene-alpha-olefin copolymer, peroxy carbonate-based crosslinking agent, light stabilizer and carbodiimide compound
WO2021065669	(ELED) DENKA CO LTD	Acrylic rubber used in crosslinked rubber composition for producing E.G. hose component, comprises alkyl acrylate unit, crosslinked monomer unit, bifunctional monomer unit, and ethylene unit, and has preset toluene insoluble content
KR20210029964	(UYPO) POSTECH ACAD-IND FOUND	Producing polypyrrole film useful in electronics, biomedical engineering, and applied material engineering, comprises E.G. dropping prepared crosslinking solution as droplets on surface of polymer membrane
EP3789446	(HENK) HENKEL AG & CO KGAA	Crosslinking agent useful for vulcanization, comprises a metal compound, and an amine compound encapsulated in the metal compound

Estabilizadores

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102019132294	(FREU) FREUDENBERG KG CARL	Flame-retardant polymer composition for forming cured product E.G. automobile component, comprises at least one elastomeric polymer comprising at least one monomer in copolymerized form, chosen from alkylenes, and polyarylene sulfide
US2021115274	(MITQ) MITSUBISHI ELECTRIC CORP (MITQ) MITSUBISHI ELECTRIC RES LAB INC	Resin formulation used E.G. for creating components via 3D printing in zero gravity while on-orbit in space environment, comprises mixture of low volatility oligomers, plasticizer, photoinitiator, thermal inhibitor and defoaming agent
WO2021074178	(TRCH) TREIBACHER IND AG	Polymeric composition comprises thermoplastic polyester and rare earth compound comprising lanthanum hydroxide and/or cerium oxide hydrate
JP2021054968	(SEKI) SEKISUI CHEM CO LTD (SEKI) SEKISUI CHEM IND CO LTD	Heat conductive resin sheet used in E.G. in-vehicle camera and drive recorder, has preset heat conductivity, compression strength, glossiness retention rate in fogging test, and change rate compression strength after heat test

Biocidas

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20210045737	(WITH-N) WITH JUNGWON CO LTD	Antibacterial film useful for food packaging, comprises slaked lime derived from shellfish and a thermoplastic polymer resin
KR102238550	(SKCS-N) SKCS CO LTD	Antibacterial film for automotive tinting, comprises composition E.G. silver nano-antibacterial agent, first base layer positioned on lower surface of antibacterial layer and release film located on lower surface of adhesive layer
KR102236172	(KCKK) KCC CORP	Coating composition useful for medical equipment, cooperative robots and home appliances comprises first acrylic resin, second acrylic resin, and third acrylic resin having different acid values, hydroxy values and inorganic antiviral agent
KR102228207	(SMAR-N) SMART CO LTD	Preparing antibacterial film involves weighing raw material containing polyvinyl chloride, placing into blender, blending, placing in extrusion molding apparatus, melt-kneading, and extrusion molding to produce film, forming printing layer
KR20210025968	(GLDS) LG ELECTRONICS INC	Surface-exposed antimicrobial injection product useful in cover for home appliances including washing machines, dryers, air conditioners comprises E.G. resin layer made of resin composition and magnetic mixture dispersed on surface

Antiestáticos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20210050032	(SAMY) SAMYANG CORP	Thermoplastic resin composition useful for manufacturing molded article E.G. electronic component transfer cart comprises thermoplastic polyphenylene ether resin, high impact polystyrene resin, fiberglass, and carbon-based complex filler
KR20210039118	(GLDS) LG CHEM LTD	Surface protective film useful in preventing damage of adhesive layer surface comprises E.G. primary antistatic layer, base film, secondary antistatic layer, adhesive layer, release layer and protective film are laminated in sequence
WO2021066604	(GLDS) LG CHEM LTD	Surface-protective film used for organic light-emitting electronic device, comprises pressure-sensitive adhesive layer which is cured product of composition containing urethane polymer containing (meth)acrylate monomer containing silicone

Autoreparadores

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR102265535	(SAMS-N) SAMSUNG MAGMA CO LTD	Self-healing rubber asphalt comprises petroleum asphalt, plasticizer, ionomer, thermoplastic rubber, polymer resin, filler and tackifier
WO2021107437	(KOMA-N) KOREA MATERIALS SCI INST	Self-healing ion-conductive hydrogel composition used for three-dimensional printing, comprises polymerizable monomer, crosslinking agent, polymerization initiator, dynamic bond inducing compound, electrolyte and solvent
KR20210057549	(KTEC KOREA INST IND TECHNOLOGY	UV-sensitive self-healing polymer useful for preparing UV-sensitive self-healing polymer film for electronic materials comprise monomers comprising coumarin derivatives, and cyclobutane ring
WO2021102637	(SIKA) SIKA TECHNOLOGY AG (XUSS-I) XU S	Self-healing sealing device for covering substrate comprises 1ST polymeric layer, E.G. polyethylene, 2ND polymeric layer comprising 2ND polymer and powdered superabsorber polymer, and 3RD polymeric layer, E.G. polyvinylchloride
KR102258272	(MOPM-N) MOP CO LTD	Printing photo-curable three-dimensional printing using self-healing photo-curing resin, comprises E.G. sintering three-dimensional structure from polymer has been removed, and removing generated polymer exposing three-dimensional structure
WO2021096215	(KRIC) KOREA RES INST CHEM TECHNOLOGY	Temperature change sensing substrate for use as temperature sensor for preventing spoiling of refrigerated or frozen food and medical supplies, includes self-healing polyurethane polymer matrix and pores dispersed in matrix
WO2021077216	(BULL-I) BULLET J (COTT-I) COTTENYE N (KRYU-I) KRYUCHKOV M (RAJA-I) RAJAGOPALAN S	Self-healing elastomeric material used for artificial skin, comprises polysiloxane or polyether soft segments connected via carbonate, urethane and/or urea bonds, and is intrinsically and/or thermally self-healing elastomeric material
JP2021070768	(OSAU) UNIV OSAKA	Polymer composite used as self-healing material, comprises cellulose material comprising cellulose and/or its derivative, and polymer containing host group and guest group containing monovalent group penetrating host group in skewered form
WO2021067811	(UNMI) UNIV MICHIGAN	Self-healing polymeric material used to E.G. self-healing pressure sensitive adhesive and device comprises polymer network comprising poly(vinyl alcohol) defines ligand having transition metal ion coordination site and transition metal ion

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021065783	(MITA) MITSUI CHEM INC	Thermoplastic polyurethane resin useful in film, comprises reaction product of polyisocyanate component containing 1,4-bis(isocyanatomethyl)cyclohexane, comprising trans-isomer, having amorphous polycarbonate diol
US2021079142	(KOAD) KOREA ADVANCED SCI & TECHNOLOGY INST	Manufacture of self-healing polymer involves forming self-healing polymer by adjusting physical properties depending on composition of copolymer using monomers of glycidyl methacrylate and initiator of tert-butyl peroxide
KR102234511	(USKK) UNIV SUNGKYUNKWAN RES & BUSINESS FOUND (UYIA) UNIV YONSEI IND ACADEMIC COOP FOUND	Polymer encapsulated conductive fiber has conductive shell generated by absorbing metal precursor solution in precursor absorbing layer and reducing absorbed metal precursor to metal particles using reducing agent
BR102019017050	(URGR) UNIV FEDERAL DO RIO GRANDE DO SUL	Preparing selenium-containing polymers with self-healing properties used for manufacturing article by reacting carboxylic acids or acid chlorides with diselenides or reacting amines or alcohols with diselenides
JP2021042300	(UYUK) UNIV HOKURIKU	New urea polymer used in self-healing resin composition and preparation of maleimide polymer and bis(polymaleimide)polymer, contains 2,5-bis(aminomethyl)furan-containing repeating unit

Nanocomposites

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021102523	(ROYA-N) ROYAL MELBOURNE INST TECHNOLOGY LTD	Dry graphene powder composition used in graphene ink used in two- or three-dimensional printing comprises pristine graphene flakes non-covalently functionalized with polymeric amphiphilic molecules
PL433608	(HEXJ-N) HEXJA COMPOSITES SP ZOO SPK	Flame retardant composite comprises resin bonded structural layers of carbon or glass fabrics including inner flame-retardant layer containing graphene and expandable graphite, and outer flame-retardant layer containing expanding graphite
JP2021080609	(NTTA) NITTA CORP (NTTA) NITTA KK	Complex materials, such as coil spring, for carbon fiber reinforced molded object used in fields, such as aircraft, comprise comprises carbon nanotube that adheres to surface of carbon fiber directly during forming network structure

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2021092787	(ENVI-N) ENVISION ENERGY CO LTD	Manufacturing carbon nanotube modified fiber reinforced material comprises providing fiber bundles, pulling fiber bundle, adding carbon nanotubes to glue groove to form filling material, soaking stretched fiber bundle into potting material
KR20210051408	(KUMN) KUMOH NAT INST TECHNOLOGY IND ACAD COOP	Acrylonitrile butadiene styrene resin composite for long fiber reinforced thermoplastic, comprises adding carbon nanotubes to nitric acid mixed solution to obtain carbon nanotubes in which functional group of oh, cooh is bonded to surface
JP2021070232	(DIWS) GLOBERIDE INC	Fiber-reinforced prepreg for, E.G. spigot structures, is coated with cellulose nanofiber
KR20210046285	(KRIC) KOREA RES INST CHEM TECHNOLOGY	Producing polymer composite material, comprises melt-kneading a master batch in which arylene ether or arylene ether imide polymer and aramid nanofibers are dispersed
WO2021072357	(XGSC-N) XG SCI INC	Graphene-reinforced polyamide composite for E.G. clothing, comprises graphene incorporated in polyamide resin by melt compounding graphene as masterbatch with compatibilizer as matrix of masterbatch, and having preset carbon-oxygen ratio
KR102234468	(NEXT-N) NEXT-GEN GRAPHENE POLYMERS CO LTD	Graphene or carbon material-polymer resin composite manufacturing facility comprises extruder for mixing and melting graphene or carbon material with polymer resin and extruding it into filter assembly that discharge gas generated
US2021071355	(FIRS-N) FIRST STEP HOLDINGS LLC	Cloth article is formed of reinforced fabric material of polyethylene fibers containing particles of metal and carbon fiber nanotubes in polyethylene fibers during fiber formation, where particles of metal are E.G. elemental zinc particles
KR20210036174	(HICN-N) HI CNT CO LTD	Manufacturing carbon nanotube composite materials involves preparing dispersion by mixing water-dispersible acrylic-based anionic resin with distilled water, injecting carbon nano tube into stirrer, and then spraying dispersion
US2021082598	(BRAS-N) BRASKEM RES CENT (GARM-N) GARMOR INC	Injection moldable/extrudable composite used for producing E.G. compression-molded ultra-high molecular weight polyethylene, comprises non-extrudable or poorly-extrudable polymer and graphene/graphite oxide or graphene oxide
FR3100476	(SFRA) SAFRAN AIRCRAFT ENGINES	Manufacture of nanotube-reinforced composite material for turbomachine, involves stacking prepreg composite plies and nanotube-incorporated composite ply comprising thermoplastic component, positioned in inter-plies space between two plies

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP2021045882	(NIKL) JAPAN STEEL WORKS LTD	Production of nanomaterial-containing resin composite for E.G. display apparatus, involves preparing component containing nanomaterial, impregnating nanomaterial with molten resin, and forming resin composite and peeling resin composite
US2021122891	(HEXC) HEXCEL CORP	Prepreg useful in composite part or structure, comprises reinforcing fibers, uncured resin matrix comprising resin component, thermoplastic particle component, thermoplastic toughening agent, nanoparticles component, and curing agent

VOLVER A
CONTENIDO

NOTICIAS

DIRECTIVA DE PLÁSTICOS DE UN SOLO USO (SUP): EL MITERD CONFIRMA SU ENTRADA EN VIGOR

La Directiva SUP (Single Use Plastic) para la reducción del impacto de ciertos plásticos en el medio ambiente entró en vigor el pasado 3 de julio de 2021. Así lo ha comunicado el Ministerio para la Transición Ecológica y Reto Demográfico a través de una Nota Informativa.

Esto significa que desde esta fecha no se podrá introducir en el mercado español ninguno de los productos de plástico de un solo uso que detallamos más adelante, ni ningún producto de plástico fabricado con plástico oxodegradable. Además, se especifican los artículos que tendrán obligación de marcado para poder ser introducidos en el mercado por el fabricante o el importador después del 3 de julio de 2021.

La Nota Informativa aclara conceptos y establece soluciones relacionadas con qué se debe entender por “introducción en el mercado”, qué sucede con los productos en stock, qué consideración les cabe a los productos “comercializados por internet” y el momento en que debe entenderse la introducción en el mercado en los casos de “importaciones”.

Fuente: <https://www.aimplas.es/blog/directiva-de-plasticos-de-un-solo-uso-sup-el-miterd-confirma-su-entrada-en-vigor/>

LOS PRODUCTORES EUROPEOS DE PLÁSTICOS PREVÉN UNA INVERSIÓN DE 7.200 MILLONES DE EUROS EN RECICLAJE QUÍMICO

PlasticsEurope anuncia un aumento significativo en la inversión planeada en reciclaje químico: de 2 600 millones de euros en 2025 a 7 200 millones de euros en 2030. Para acelerar aún más las inversiones en esta tecnología clave y la transición hacia una economía circular, PlasticsEurope pide un marco regulatorio sólido y armonizado.

Se estima que para 2050 casi el 60% de la producción mundial de plásticos podría basarse en la reutilización y el reciclaje. Los miembros de PlasticsEurope ya están invirtiendo miles de millones de euros y colaborando con partners innovadores de la cadena de valor para impulsar el reciclaje químico y otras soluciones tecnológicas de vanguardia. Sus empresas miembros planean aumentar su inversión en reciclaje químico para obtener 1,2 millones de toneladas de plásticos reciclados, gracias a esta tecnología, en 2025 y 3,4 millones de toneladas en 2030.

Fuente: <https://www.plasticseurope.org/en/newsroom/press-releases/european-plasticsmanufacturers-plan-over-7-billion-euros-investment-chemical-recycling>

EL PLÁSTICO Y SUS CONSECUENCIAS DURANTE LA PANDEMIA COVID-19

Durante el brote pandémico de COVID-19, el papel importante del plástico se ha hecho evidente ya que los equipos vitales como los respiradores tienen partes plásticas, así como los equipos de protección personal (EPP), que evita la transmisión del virus SARS-CoV-2, están realizados en plástico. Desde este punto de vista, se podría considerar este material como un salvador de vidas durante la pandemia.

Sin embargo, el mismo material protector se convierte en contaminante cuando se elimina de forma inadecuada en el medio ambiente, generando o agravando problemas socioambientales, como la contaminación de las masas de agua por plástico. Este trabajo propone una reflexión sobre el papel y la

importancia del plástico en nuestra sociedad, trayendo un panorama de sus principales aplicaciones y consecuencias durante la pandemia COVID-19, correlacionando su uso con aspectos relacionados con problemas ambientales y de salud pública. Se plantean algunas preguntas que giran en torno a las preocupaciones causadas por la contaminación plástica y se describen algunas posibles soluciones a los problemas.

Fuente: <https://link.springer.com/article/10.1007%2Fs11356-021-15425-w>

LAS 10 PRINCIPALES TENDENCIAS EN PLÁSTICOS DE ALTO RENDIMIENTO

De la mano de Dr. Keith Hechtel, descubrimos las 10 principales tendencias de los plásticos técnicos. Observando que los plásticos ahora se están utilizando para mejorar la calidad y la seguridad, y reducir los costos de fabricación y el tiempo de producción en una amplia gama de industrias, incluido el transporte, equipos recreativos, dispositivos médicos y muchos otros, Keith se centra en diez de esas tendencias que abarcan industrias y aplicaciones.

Fuente: <https://www.ptonline.com/blog/post/-top-10-modern-trends-in-performance-plastics>

SUBVENCIONES PARA EL FOMENTO DE LAS SOLICITUDES DE PATENTES Y MODELOS DE UTILIDAD. CONVOCATORIA 2021



La OEPM continúa impulsando en el ejercicio 2021 la utilización de la Propiedad Industrial por las empresas españolas como herramienta de acceso a los mercados internacionales. Con tal finalidad, el pasado 10 de mayo de 2021 se publicó en el BOE la convocatoria de subvenciones en régimen de concurrencia competitiva para el fomento de las solicitudes de patentes y modelos de utilidad españoles y en el exterior para el año 2021.

Las ayudas ofrecidas en la convocatoria han sido:

- Subvenciones a la extensión de una solicitud de una patente o de un modelo de utilidad, ante las oficinas nacionales de países terceros u oficinas regionales de patentes. Entre otros conceptos subvencionables, se incluyen: trámites de solicitud, informe de búsqueda, examen o concesión, anualidades de la EPO y validación de patente europea.
- Subvenciones a las actividades realizadas dentro del procedimiento internacional PCT: trámites de solicitud, búsqueda internacional o examen preliminar.
- Subvenciones a las solicitudes de patentes y modelos de utilidad españoles: trámites de solicitud y/o informe del estado de la técnica (IET) para solicitudes de patentes y modelos de utilidad, y examen sustantivo para solicitudes de patentes.

[Más información sobre la convocatoria de subvenciones](#)

[Información general de ayudas para la protección de la propiedad industrial útil para las pymes](#)

PUBLICACIÓN DEL FOLLETO E INFOGRAFÍA "LA OEPM EN CIFRAS 2020"

La OEPM ha publicado los datos y cifras de patentes, modelos de utilidad, marcas, nombres comerciales y diseños relativos al año 2020. Además, se han incluido por primera vez los datos sobre solicitudes de **Informes Tecnológicos de Patentes (ITP)**, que es el servicio de información tecnológica no gratuito de la OEPM más demandado por los solicitantes.



El folleto también incluye solicitudes internacionales de origen español mediante el sistema PCT, mediante el sistema de Madrid (marca internacional) y el sistema de la Haya (diseño internacional); así como solicitudes regionales de origen español, Patente Europea, Marca de la Unión Europea y Diseño Comunitario.

Del informe, se destaca que por primera vez en diez años el número de solicitudes para la protección de invenciones ha aumentado, invirtiendo la tendencia al descenso sostenida en los últimos años que se acusó aún más desde la entrada en vigor de la Ley 24/2015 de Patentes el 1 de abril de 2017. Este incremento, aproximadamente del 20% es debido, en parte, a la pandemia causada por la enfermedad COVID19, estando estas solicitudes de patentes y modelos de utilidad relacionadas con tecnologías médicas.

Más información:

[Noticia](#)

[La OEPM en cifras 2020](#)

[Infografía 2020](#)

8 JUNIO 2021: DÍA MUNDIAL ANTIFALSIFICACIÓN

Con motivo del Día Mundial Antifalsificación la OEPM ha celebrado los siguientes eventos centrados en la protección de los Derechos de Propiedad Industrial (DPI) y la lucha contra su vulneración:

- Mesa redonda: **“Conexión entre los delitos contra los derechos de propiedad industrial y otros delitos graves. El rol de Europol en la lucha contra las falsificaciones”**.
- Mesa redonda: **“La salud y seguridad de los consumidores frente a la falsificación de productos”**
- Mesa redonda: **“El papel de las entidades locales en la lucha contra las falsificaciones”**



Así mismo, el día 8 de junio el Observatorio de la EUIPO presentó la **SPRING CAMPAING**, campaña paneuropea de sensibilización frente a las falsificaciones que se ha lanzado simultáneamente en todos los países de la UE.

La incertidumbre de los consumidores en relación a los productos falsificados es un

motivo de preocupación para los ciudadanos europeos y ha aumentado durante la pandemia de la COVID-19 debido al incremento de compras en el comercio electrónico y a la proliferación de medicamentos falsificados. Las falsificaciones no solo afectan a los consumidores, la economía de la Unión Europea (UE) y las pymes también se ven perjudicadas. Para más información sobre esta campaña puede seguir los siguientes enlaces:

[Enlace a la nota de prensa](#)

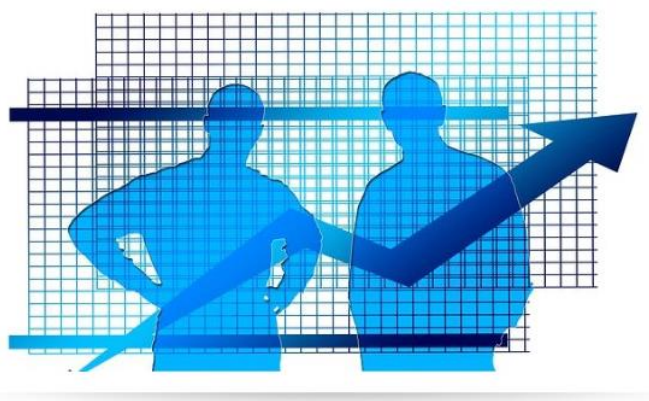
[Enlace a la infografía](#)

[Enlace al vídeo](#)

[Enlace al informe: Riesgos y daños que plantea la vulneración de los DPI en Europa](#)

COMPROMISO DEL GOBIERNO DE ESPAÑA CON LOS DERECHOS DE PROPIEDAD INTELECTUAL E INDUSTRIAL COMO PALANCAS DE ESTÍMULO DE LA CREACIÓN, LA INNOVACIÓN Y EL DESARROLLO TECNOLÓGICO Y CIENTÍFICO

El 20 de abril de 2021, el Consejo de Ministros aprobó una Declaración Institucional con motivo del Día Mundial de la Propiedad Intelectual-Industrial, que se celebró el 26 de abril, a iniciativa de la OEPM y la Dirección General de Industrias Culturales, Propiedad Intelectual y Cooperación y propuesta del Ministerio de Industria, Comercio y Turismo, el Ministerio de Cultura y Deporte, el Ministerio de Asuntos Exteriores, Unión Europea y Cooperación y el Ministerio de Ciencia e Innovación.



Con motivo de la celebración el día 26 de abril del Día Mundial de la Propiedad Intelectual, declarado así por la Organización Mundial para la Propiedad Intelectual (OMPI), el Gobierno de España manifestó su compromiso con el uso y protección de los derechos de Propiedad Intelectual e Industrial como palancas de estímulo de la creación, la innovación y el desarrollo tecnológico y científico.

[Más información](#)

