

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

SHAPING

B29 **WORKING OF PLASTICS; WORKING OF SUBSTANCES IN A PLASTIC STATE, IN GENERAL** (processing doughs [A21C](#); working chocolate [A23G](#); casting of metals [B22](#); working cement, clay [B28](#); chemical aspects, see section [C](#), particularly [C08](#); working glass [C03B](#); candle making [C11C 5/02](#); making soap [C11D 13/00](#); manufacture of artificial filaments, threads, fibres, bristles or ribbons [D01D](#), [D01F](#); manufacture of articles from cellulosic fibrous suspensions or from papier-mâché [D21J](#))

(NOTES omitted)

B29B **PREPARATION OR PRETREATMENT OF THE MATERIAL TO BE SHAPED; MAKING GRANULES OR PREFORMS; RECOVERY OF PLASTICS OR OTHER CONSTITUENTS OF WASTE MATERIAL CONTAINING PLASTICS**

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|-------|---|-------|---|
| 7/00 | Mixing; Kneading ({for preparation of dough A21C 1/00 ; } in general B01F ; combined with calendaring B29C 43/24 , with injection B29C 45/46 , with extrusion B29C 47/36) | 7/248 | {with plungers for introducing the material, e.g. from below (B29B 7/246 takes precedence)} |
| 7/002 | . {Methods (chemical aspects C08J 3/00)} | 7/26 | . . . for discharging, e.g. doors |
| 7/005 | . . {for mixing in batches} | 7/263 | {from the underside in mixers having more than one rotor and a casing closely surrounding the rotors} |
| 7/007 | . . {for continuous mixing} | 7/266 | {using sliding doors} |
| 7/02 | . non-continuous, with mechanical mixing or kneading devices, i.e. batch type | 7/28 | . . . for measuring, controlling or regulating, e.g. viscosity control ({ B29B 7/242 takes precedence}) |
| 7/04 | . . with non-movable mixing or kneading devices | 7/283 | {measuring data of the driving system, e.g. torque, speed, power} |
| 7/06 | . . with movable mixing or kneading devices | 7/286 | {measuring properties of the mixture, e.g. temperature, density (B29B 7/283 takes precedence)} |
| 7/08 | . . . shaking, oscillating or vibrating | 7/30 | . continuous, with mechanical mixing or kneading devices |
| 7/085 | {by means of axially movable pistons} | 7/32 | . . with non-movable mixing or kneading devices |
| 7/10 | . . . rotary | 7/325 | . . . {Static mixers (in general B01F 5/0602)} |
| 7/103 | {with rollers or the like in casings} | 7/34 | . . with movable mixing or kneading devices |
| 7/106 | {using rotary casings} | 7/36 | . . . shaking, oscillating or vibrating |
| 7/12 | with single shaft | 7/365 | {by means of axially movable pistons} |
| 7/125 | {having a casing closely surrounding the rotor, e.g. for masticating rubber (with more than one shaft B29B 7/183); Rotors therefor (B29B 7/14 , B29B 7/16 take precedence)} | 7/38 | . . . rotary (B29B 7/52 takes precedence) |
| 7/14 | with screw or helix | 7/385 | {fluid mixers} |
| 7/16 | with paddles or arms | 7/40 | with single shaft |
| 7/18 | with more than one shaft | 7/401 | {having a casing closely surrounding the rotor, e.g. with a plunger for feeding the material (B29B 7/407 , B29B 7/42 take precedence)} |
| 7/183 | {having a casing closely surrounding the rotors, e.g. of Banbury type (with single shaft B29B 7/125)} | 7/402 | {using a rotor-stator system with intermeshing elements, e.g. teeth (B29B 7/408 , B29B 7/404 take precedence)} |
| 7/186 | {Rotors therefor} | 7/404 | {with feeding or valve actuating means, e.g. with cleaning means} |
| 7/20 | with intermeshing devices, e.g. screws | 7/405 | {Mixing heads (B29B 7/404 , B29B 7/42 take precedence; mixing heads without moving stirrer B29B 7/7457)} |
| 7/22 | . . Component parts, details or accessories; Auxiliary operations | | |
| 7/24 | . . . for feeding | | |
| 7/242 | {in measured doses} | | |
| 7/244 | {of several materials} | | |
| 7/246 | {in mixers having more than one rotor and a casing closely surrounding the rotors, e.g. with feeding plungers} | | |

- 7/407 {with a casing closely surrounding the rotor, e.g. with conical rotor}
- 7/408 {with mixing elements on a rotor co-operating with mixing elements, perpendicular to the axis of the rotor, fixed on a stator}
- 7/42 with screw or helix
- 7/421 {with screw and additionally other mixing elements on the same shaft, e.g. paddles, discs, bearings, rotor blades of the Banbury type}
- 7/422 {with screw sections co-operating, e.g. intermeshing, with elements on the wall of the surrounding casing}
- 7/423 {and oscillating axially ([in general B01F 11/0057](#))}
- 7/424 {with conical screw surrounded by conical casing}
- 7/425 {with screw surrounded by a casing provided with grooves or cavities}
- 7/426 {with consecutive casings or screws, e.g. for charging, discharging, mixing}
- 7/427 {with independently driven screws rotating about the same axis, e.g. oscillating axially; with axially oscillating screws ([B29B 7/423 takes precedence](#))}
- 7/428 {Parts or accessories, e.g. casings, feeding or discharging means}
- 7/429 {Screws ([B29B 7/421 takes precedence](#))}
- 7/44 with paddles or arms
- 7/46 with more than one shaft
- 7/465 {each shaft comprising rotor parts of the Banbury type in addition to screw parts}
- 7/48 with intermeshing devices, e.g. screws
- 7/481 {provided with paddles, gears or discs ([B29B 7/482 takes precedence](#))}
- 7/482 {provided with screw parts in addition to other mixing parts, e.g. paddles, gears, discs}
- 7/483 {the other mixing parts being discs perpendicular to the screw axis}
- 7/484 {with two shafts provided with screws, e.g. one screw being shorter than the other ([B29B 7/482 takes precedence](#))}
- 7/485 {with three or more shafts provided with screws}
- 7/486 {with screws surrounded by a casing provided with grooves or cavities}
- 7/487 {with consecutive casings or screws, e.g. for feeding, discharging, mixing}
- 7/488 {Parts, e.g. casings, sealings; Accessories, e.g. flow controlling or throttling devices ([discharging B29B 7/582; feeding B29B 7/60](#))}
- 7/489 {Screws ([B29B 7/482 takes precedence](#))}
- 7/50 with rotary casing
- 7/52 with rollers or the like, e.g. calenders
- 7/523 {co-operating with casings}
- 7/526 {with two or more rollers}
- 7/54 with a single roller co-operating with a stationary member {other than the casing}
- 7/56 with co-operating rollers {, e.g. with repeated action, i.e. the material leaving a set of rollers being reconducted to the same set or being conducted to a next set}
- 7/562 {with means for axially moving the material on the rollers}
- 7/564 {at least one of the rollers being provided with helicoidal grooves or ridges, e.g. followed by axial extrusion}
- 7/566 {provided with means to take material away from a set of rollers and to reconduct it to the same set; provided with endless belts, e.g. which can be in or out of cooperation with at least one of the rollers}
- 7/568 {with consecutive sets of rollers or a train of rollers}
- 7/58 Component parts, details or accessories; Auxiliary operations
- 7/582 {for discharging, e.g. doors}
- 7/584 {for mixers with rollers, e.g. wedges, guides, pressing means, thermal conditioning}
- 7/586 {Drives}
- 7/588 {cutting devices, e.g. movable cutting devices ([scrapers for stripping the material from rollers B29B 7/645](#))}
- 7/60 for feeding, e.g. end guides for the incoming material {([B29B 7/7615 takes precedence; feeding predetermined amounts for mixing in general B01F 15/0216](#))}
- 7/603 {in measured doses, e.g. proportioning of several materials}
- 7/606 {specially adapted for feeding calenders or the like}
- 7/62 Rollers, e.g. with grooves ([B29B 7/564 takes precedence](#))
- 7/625 {provided with cooling or heating means}
- 7/64 Stripping the material from the rollers
- 7/645 {by means of a scraper moving in the axial direction of the rollers}
- 7/66 Recycling the material {([B29B 7/566 takes precedence](#))}
- 7/68 Positioning of rollers
- 7/70 Conditioning of rollers, e.g. cleaning
- 7/72 Measuring, controlling or regulating
- 7/722 {Safety devices}
- 7/724 {for continuous roller mixers, e.g. calenders ([B29B 7/722 takes precedence](#))}
- 7/726 {Measuring properties of mixture, e.g. temperature or density ([B29B 7/724 takes precedence](#))}
- 7/728 {Measuring data of the driving system, e.g. torque, speed, power, vibration ([B29B 7/724 takes precedence](#))}
- 7/74 using other mixers or combinations of {mixers, e.g. of} dissimilar mixers{; Plant}
- 7/7404 {Mixing devices specially adapted for foamable substances ([B29B 7/76 takes precedence](#))}
- 7/7409 {with supply of gas}
- 7/7414 {with rotatable stirrer, e.g. using an intermeshing rotor-stator system ([B29B 7/7423 takes precedence](#))}
- 7/7419 {with static or injector mixer elements}

- 7/7423 {preceded or followed by rotatable stirring device}
- 7/7428 {Methodical aspects}
- 7/7433 . . . {Plants}
- 7/7438 . . {Mixing guns, i.e. hand-held mixing units having dispensing means ([B29B 7/761](#), [B29B 7/7678](#) take precedence)}
- 7/7442 . . . {with driven stirrer}
- 7/7447 . . . {including means for feeding the components}
- 7/7452 . . . {for mixing components by spraying them into each other; for mixing by intersecting sheets}
- 7/7457 . . {Mixing heads without moving stirrer ([B29B 7/7438](#), [B29B 7/76](#) take precedence)}
- 7/7461 . . {Combinations of dissimilar mixers}
- 7/7466 . . {Combinations of similar mixers}
- 7/7471 . . {Mixers in which the mixing takes place at the inlet of a mould, e.g. mixing chambers situated in the mould opening}
- 7/7476 . . {Systems, i.e. flow charts or diagrams; Plants}
- 7/748 . . . {Plants ([B29B 7/7433](#), [B29B 7/7485](#), [B29B 7/7495](#) take precedence)}
- 7/7485 . . . {with consecutive mixers, e.g. with premixing some of the components}
- 7/749 {with stirring means for the individual components before they are mixed together}
- 7/7495 . . . {for mixing rubber}
- 7/76 . . {Mixers} with stream-impingement mixing head
- 7/7605 . . . {having additional mixing arrangements ([B29B 7/7673](#) takes precedence)}
- 7/761 . . . {of gun-type, i.e. hand-held units having dispensing means ([B29B 7/7678](#) takes precedence)}
- 7/7615 . . . {characterised by arrangements for controlling, measuring or regulating, e.g. for feeding or proportioning the components}
- 7/7621 {involving introducing a gas or another component in at least one of the components}
- 7/7626 {using measuring chambers of piston or plunger type ([B29B 7/7621](#) takes precedence; for mixing in general [B01F 15/0454](#))}
- 7/7631 . . . {Parts; Accessories ([B29B 7/7684](#) takes precedence)}
- 7/7636 {Construction of the feed orifices, bores, ports}
- 7/7642 {Adjustable feed orifices, e.g. for controlling the rate of feeding}
- 7/7647 {Construction of the mixing conduit module or chamber part}
- 7/7652 {Construction of the discharge orifice, opening or nozzle}
- 7/7657 {Adjustable discharge orifices, openings or nozzle openings, e.g. for controlling the rate of dispensing}
- 7/7663 . . . {the mixing head having an outlet tube with a reciprocating plunger, e.g. with the jets impinging in the tube}
- 7/7668 {having a second tube intersecting the first one with the jets impinging in the second tube}
- 7/7673 {having additional mixing arrangements ([B29B 7/7668](#) takes precedence)}
- 7/7678 {of the gun type, i.e. hand-held units}
- 7/7684 {Parts; Accessories}
- 7/7689 {Plunger constructions}
- 7/7694 {comprising recirculation channels; ducts formed in the plunger}
- 7/78 . . by gravity, e.g. falling particle mixers
- 7/80 . . Component parts, details or accessories; Auxiliary operations ([B29B 7/22](#), [B29B 7/58](#) take precedence; cleaning mixers [B01F 15/00019](#))}
- 7/801 . . {Valves}
- 7/802 . . {Constructions or methods for cleaning the mixing or kneading device ([cleaning in general B08B](#))}
- 7/803 . . . {Cleaning of mixers of the gun type, stream-impingement type, mixing heads}
- 7/805 {Cleaning of the mixing conduit, module or chamber part}
- 7/806 {Cleaning of the discharge opening, e.g. orifice of the dispenser}
- 7/807 {Cleaning of the central body of the plunger}
- 7/808 {Cleaning of the plunger tip}
- 7/82 . . Heating or cooling
- 7/823 . . . {Temperature control}
- 7/826 . . . {Apparatus therefor}
- 7/84 . . Venting or degassing {; Removing liquids, e.g. by evaporating components}
- 7/842 . . . {Removing liquids in liquid form}
- 7/845 . . . {Venting, degassing or removing evaporated components in devices with rotary stirrers}
- 7/847 {Removing of gaseous components before or after mixing}
- 7/86 . . for working at sub- or superatmospheric pressure {([B01F 13/06](#) takes precedence)}
- 7/88 . . Adding charges{, i.e. additives}
- 7/885 . . . {with means for treating, e.g. milling, the charges ([B29B 7/905](#) takes precedence)}
- 7/90 . . . Fillers or reinforcements {, e.g. fibres}
- 7/905 {with means for pretreatment of the charges or fibres}
- 7/92 Wood chips or wood fibres
- 7/94 . . . Liquid charges
- 7/945 {involving coating particles}
- 9/00 Making granules (in general [B01J](#); chemical aspects [C08J 3/12](#))**
- 9/02 . . by dividing preformed material
- 9/04 . . in the form of plates or sheets
- 9/06 . . in the form of filamentary material, e.g. combined with extrusion
- 9/065 . . . {under-water, e.g. underwater pelletizers}
- 9/08 . . by agglomerating smaller particles
- 9/10 . . by moulding the material, i.e. treating it in the molten state
- 9/12 . . characterised by structure or composition
- 2009/125 . . {Micropellets, microgranules, microparticles}
- 9/14 . . fibre-reinforced
- 9/16 . . Auxiliary treatment of granules
- 2009/161 . . {Absorbing, i.e. introducing a gas, a liquid or a solid material into the granules}
- 2009/163 . . {Coating, i.e. applying a layer of liquid or solid material on the granule}
- 2009/165 . . {Crystallizing granules}
- 2009/166 . . {Deforming granules to give a special form, e.g. spheroidizing, rounding}

- 2009/168 . . {Removing undesirable residual components, e.g. solvents, unreacted monomers; Degassing}
- 11/00 Making preforms** ([B29C 61/06](#) takes precedence; combined with blow-moulding [B29C 49/02](#), with thermoforming [B29C 51/02](#); making preforms for manufacturing of light guides [B29D 11/00721](#))
- 11/02 . by dividing preformed material, e.g. sheets, rods
- 11/04 . by assembling preformed material
- 11/06 . by moulding the material
- 11/08 . . Injection moulding
- 11/10 . . Extrusion moulding
- 11/12 . . Compression moulding
- 11/14 . characterised by structure or composition
- 11/16 . . comprising fillers or reinforcement {(non-woven fabrics [per se D04H 1/00](#), [D04H 3/00](#))}
- 13/00 Conditioning or physical treatment of the material to be shaped** (chemical aspects [C08J 3/00](#) ; heating, cooling or curing during shaping [B29C 35/00](#); thermal after-treatment [B29C 71/02](#))
- 2013/002 . {Extracting undesirable residual components, e.g. solvents, unreacted monomers, from material to be moulded}
- 2013/005 . {Degassing undesirable residual components, e.g. gases, unreacted monomers, from material to be moulded}
- 13/007 . {Treatment of sinter powders}
- 13/02 . by heating ([B29B 13/06](#), [B29B 13/08](#) take precedence)
- 13/021 . . {Heat treatment of powders}
- 13/022 . . {Melting the material to be shaped}
- 13/023 . . {Half-products, e.g. films, plates}
- 13/024 . . . {Hollow bodies, e.g. tubes or profiles}
- 13/025 {Tube ends}
- 2013/026 . . . {Obtaining a uniform temperature over the whole surface of films or tubes}
- 2013/027 . . . {Obtaining a temperature gradient over the surface of films or tubes}
- 2013/028 . . . {Obtaining a temperature gradient across the wall thickness of plates or tubes}
- 13/04 . by cooling {(cooling moulded articles or half products [B29C 35/16](#))}
- 13/045 . . {of powders or pellets}
- 13/06 . by drying ([B29B 13/08](#) takes precedence; drying moulded articles or half products [B29C 37/0092](#))
- 13/065 . . {of powder or pellets}
- 13/08 . by using wave energy or particle radiation
- 13/10 . by grinding, e.g. by triturating; by sieving; by filtering
- 15/00 Pretreatment of the material to be shaped, not covered by groups [B29B 7/00](#) - [B29B 13/00](#)**
- 15/02 . of crude rubber, gutta-percha, or similar substances ([tapping latex A01G](#); chemical aspects [C08C](#))
- 15/023 . . {Breaking up rubber bales}
- 15/026 . . {Baling of rubber}
- 15/04 . . Coagulating devices
- 15/06 . . Washing devices
- 15/08 . of reinforcements or fillers (chemical aspects [C08J](#), [C08K](#))
- 15/10 . . Coating or impregnating {independently of the moulding or shaping step} ([applying liquids in general B05](#))
- NOTE**
- Where the coating or impregnating is combined with moulding the documents are classified in [B29C 53/8066](#), [B29C 70/00](#)
- 15/105 . . . {of reinforcement of definite length with a matrix in solid form, e.g. powder, fibre or sheet form ([calendering B29C 70/506](#))}
- 15/12 . . . of reinforcements of indefinite length
- 15/122 {with a matrix in liquid form, e.g. as melt, solution or latex}
- 15/125 {by dipping}
- 15/127 {by spraying}
- 15/14 of filaments or wires
- 17/00 Recovery of plastics or other constituents of waste material containing plastics;** ({volume reduction of waste plastics, e.g. by mechanical compacting or melting disposal of solid waste [B09B](#); } chemical recovery [C08J 11/00](#))
- 17/0005 . {Direct recuperation and re-use of scrap material during moulding operation, i.e. feed-back of used material}
- 2017/001 . {Pretreating the materials before recovery}
- 2017/0015 . . {Washing, rinsing}
- 2017/0021 . . {Dividing in large parts}
- 17/0026 . {by agglomeration or compacting}
- 2017/0031 . . {Melting the outer surface of compressed waste, e.g. for forming briquets by expelling the compressed waste material through a heated tool}
- 17/0036 . . {of large particles, e.g. beads, granules, pellets, flakes, slices}
- 17/0042 . . {for shaping parts, e.g. multilayered parts with at least one layer containing regenerated plastic}
- 17/0047 . . {Compacting complete waste articles}
- 17/0052 . . . {Hollow articles, e.g. bottles}
- 2017/0057 {Externally powered deformation tools, e.g. tools being part of relatively big non domestic installations, powered by motors}
- 2017/0063 {Manually driven deformation tools, e.g. tools being part of domestic installations}
- 2017/0068 {Softening the hollow articles by heat and causing permanent deformation}
- 2017/0073 {Removing caps or labels during deformation}
- 2017/0078 {Maintaining the deflated state, e.g. by mounting original screw lids after deformation}
- 2017/0084 {Deflating the hollow articles by vacuum; Details of the nozzles used in the vacuum generating devices}
- 2017/0089 . {Recycling systems, wherein the flow of products between producers, sellers and consumers includes at least a recycling step, e.g. the products being fed back to the sellers or to the producers for recycling purposes}
- 2017/0094 . {Mobile recycling devices, e.g. devices installed in truck trailers}
- 17/02 . Separating plastics from other materials
- 2017/0203 . . {Separating plastics from plastics}

17/0206	. . . {Selectively separating reinforcements from matrix material by destroying the interface bound before disintegrating the matrix to particles or powder, e.g. from tires or belts}	2017/0448	. . . {Cutting discs}
17/021	. . . {using local heating of the reinforcement}	2017/0452	. . . {the discs containing abrasives}
2017/0213	. . . {Specific separating techniques}	2017/0456	. . . {Pressing tools with calibrated openings, e.g. in sizing plates, for disintegrating solid materials}
2017/0217	. . . {Mechanical separating techniques; devices therefor}	2017/046	. . . {Extruder as pressing tool with calibrated die openings for forming and disintegrating pasty or melted material}
2017/022	. . . {Grippers, hooks, piercing needles, fingers, e.g. mounted on robots}	2017/0464	. . . {Solid state shear extrusion pulverisation}
2017/0224	. . . {Screens, sieves}	2017/0468	. . . {Crushing, i.e. disintegrating into small particles}
2017/0227	. . . {Vibratory or shaking tables}	2017/0472	. . . {Balls or rollers in a container}
2017/0231	. . . {Centrifugating, cyclones}	2017/0476	. . . {Cutting or tearing members, e.g. spiked or toothed cylinders or intermeshing rollers}
2017/0234	. . . {using gravity, e.g. separating by weight differences in a wind sifter}	2017/048	. . . {Cutter-compactors, e.g. of the EREMA type}
2017/0237	. . . {using density difference}	2017/0484	. . . {Grinding tools, roller mills or disc mills}
2017/0241	. . . {in gas, e.g. air flow}	2017/0488	. . . {Hammers or beaters}
2017/0244	. . . {in liquids}	2017/0492	. . . {Projecting the material on stationary or moving impact surfaces or plates}
2017/0248	. . . {Froth flotation, i.e. wherein gas bubbles are attached to suspended particles in an aerated liquid}	2017/0496	. . . {Pyrolysing the materials}
2017/0251	. . . {Hydropulping for converting the material under the influence of water into a slurry, e.g. for separating laminated plastic from paper}	2911/00	Indexing scheme related to making preforms for blow-moulding bottles or the like (not used)
2017/0255	. . . {using different melting or softening temperatures of the materials to be separated}	2911/14	. Layer configuration, geometry, dimensions or physical properties of preforms for blow-moulding bottles or the like (not used)
2017/0258	. . . {using heated surfaces for selective softening or melting of at least one plastic ingredient}	2911/14006	. . . layer configuration (not used)
2017/0262	. . . {using electrical characteristics}	2911/14013	. . . monolayered
2017/0265	. . . {Electrostatic separation}	2911/1402	. . . at neck portion
2017/0268	. . . {Separation of metals}	2911/14026	. . . at flange portion
2017/0272	. . . {Magnetic separation}	2911/14033	. . . at body portion
2017/0275	. . . {using chemical sensors, e.g. analysing gasified constituents}	2911/1404	. . . at bottom portion
2017/0279	. . . {Optical identification, e.g. cameras or spectroscopy}	2911/14046	. . . multilayered
2017/0282	. . . {using information associated with the materials, e.g. labels on products}	2911/14053	. . . at neck portion
2017/0286	. . . {Cleaning means used for separation}	2911/1406	. . . partially
2017/0289	. . . {Washing the materials in liquids}	2911/14066	. . . at flange portion
2017/0293	. . . {Dissolving the materials in gases or liquids}	2911/14073	. . . partially
2017/0296	. . . {Dissolving the materials in aqueous alkaline solutions, e.g. NaOH or KOH}	2911/1408	. . . at body portion
17/04	. Disintegrating plastics, {e.g. by milling} (B29B 9/02, B29B 11/02, B29B 13/10, {B29B 17/02} take precedence)	2911/14086	. . . partially
17/0404	. . {to powder}	2911/14093	. . . at bottom portion
17/0408	. . {using cryogenic systems}	2911/141	. . . partially
17/0412	. . {to large particles, e.g. beads, granules, flakes, slices}	2911/14106	. . . having at least one layer
2017/0416	. . {Cooling the plastics before disintegration, e.g. freezing}	2911/14113	. . . having at least two layers
2017/042	. . {Mixing disintegrated particles or powders with other materials, e.g. with virgin materials}	2911/1412	. . . having at least three layers
2017/0424	. . {Specific disintegrating techniques; devices therefor}	2911/14126	. . . having more than three layers
2017/0428	. . {Jets of high pressure fluid}	2911/14133	. . . having at least one layer being injected
2017/0432	. . {Abrasive blasting, i.e. the jets being charged with abrasives}	2911/1414	. . . having at least two layers being injected
2017/0436	. . {Immersion baths}	2911/14146	. . . having at least three layers being injected
2017/044	. . {Knives}	2911/14153	. . . having more than three layers being injected
2017/0444	. . {Cutting wires, e.g. vibrating wires}	2911/1416	. . . having at least one layer being extruded
		2911/14166	. . . having at least two layers being extruded
		2911/14173	. . . having at least three layers being extruded
		2911/1418	. . . having more than three layers being extruded
		2911/14186	. . . having at least one layer being thermoformed
		2911/14193	. . . having at least two layers being thermoformed
		2911/142	. . . having at least three layers being thermoformed
		2911/14206	. . . having more than three layers being thermoformed

2911/14213	. . . .	having at least one layer being compression moulded	2911/14453	. . . . .	Inner threads
2911/1422	. . . .	having at least two layers being compression moulded	2911/1446	. . . . .	No threads
2911/14226	. . . . .	having at least three layers being compression moulded	2911/14466	. . . . .	Tamper-evident band retaining ring
2911/14233	. . . . .	having more than three layers being compression moulded	2911/14473	. . . . .	Special flange
2911/1424	. . . .	having at least one layer being applied using techniques not covered by B29B 2911/14133 - B29B 2911/14213	2911/1448	. . . . .	Special body
2911/14246	. . . . .	having at least two layers being applied using said techniques	2911/14486	. . . . .	Special bottom
2911/14253	. . . . .	having at least three layers being applied using said techniques	2911/14493	. . . . .	Special sprue, i.e. injection mark
2911/1426	. . . . .	having more than three layers being applied using said techniques	2911/145	. . . . .	Special pinch-off portion
2911/14266	. . . . .	Type of said techniques not covered by B29B 2911/14133 - B29B 2911/14213	2911/14506	. . . .	Auxiliary parts or inserts
2911/14273	. . . . .	Spray coating	2911/14513	. . . .	Handle
2911/1428	. . . . .	Dip coating	2911/1452	. . . .	Closure
2911/14286	. . . . .	Powder coating	2911/14526	. . . .	Transport means
2911/14293	. . . . .	Casting	2911/14533	. . . .	Dispensing spout
2911/143	. . . .	Interaction between at least two layers	2911/1454	. . . .	Parts to assist orientation of preform, e.g. in mould
2911/14306	. . . . .	by welding	2911/14546	. . . . .	at neck portion
2911/14313	. . . . .	by using adhesives	2911/14553	. . . . .	at flange portion
2911/1432	. .	Geometry (not used)	2911/1456	. . . . .	at body portion
2911/14326	. . .	Variable wall thickness	2911/14566	. . . . .	at bottom portion
2911/14328	. . . .	at neck portion	2911/14573	. . . .	Preform, i.e. neck, flange, body and bottom, made of several individual parts
2911/1433	. . . .	at flange portion	2911/1458	. . . . .	Finish neck ring
2911/14331	. . . .	at body portion	2911/14586	. .	Mentioned dimensions (not used)
2911/14332	. . . .	at bottom portion	2911/14593	. . .	Wall thickness
2911/14333	. . .	Variable diameter	2911/146	. . . .	of the lip, i.e. the very top of the preform neck
2911/14335	. . . .	at neck portion	2911/14606	. . . .	of the neck
2911/14336	. . . .	at flange portion	2911/14613	. . . .	of the threads
2911/14337	. . . .	at body portion	2911/1462	. . . .	of the tamper-evident band retaining ring
2911/14338	. . . .	at bottom portion	2911/14626	. . . .	of the flange
2911/1434	. . .	Ribs or protrusions	2911/14633	. . . .	of the body
2911/14341	. . . .	at neck portion	2911/1464	. . . .	of the bottom
2911/14343	. . . .	at flange portion	2911/14646	. . . .	of a layer
2911/14344	. . . .	at body portion	2911/14653	. . .	Diameter, D
2911/14345	. . . .	at bottom portion	2911/1466	. . . .	of the lip, i.e. the very top of the preform neck
2911/14346	. . .	Internal separating wall	2911/14666	. . . .	of the neck
2911/14348	. . . .	at neck portion	2911/14673	. . . .	of the threads
2911/1435	. . . .	at flange portion	2911/1468	. . . .	of the tamper-evident band retaining ring
2911/14351	. . . .	at body portion	2911/14686	. . . .	of the flange
2911/14352	. . . .	at bottom portion	2911/14693	. . . .	of the body
2911/14353	. . .	Special shape	2911/147	. . . .	of the bottom
2911/1436	. . . .	Special overall shape	2911/14706	. . . .	of a layer
2911/14366	. . . . .	Conical	2911/14713	. . .	Height, length, L
2911/14373	. . . . .	Axially asymmetrical	2911/1472	. . . .	of the lip, i.e. the very top of the preform neck
2911/1438	. . . . .	Elliptic or oval cross-section shape	2911/14726	. . . .	of the neck
2911/14386	. . . . .	Rectangular cross-section shape	2911/14733	. . . .	of the threads
2911/14393	. . . . .	Hexagonal cross-section shape	2911/1474	. . . .	of the tamper-evident band retaining ring
2911/144	. . . . .	Shape allows stacking or nesting	2911/14746	. . . .	of the flange
2911/14406	. . . .	Special shape of specific parts of preform	2911/14753	. . . .	of the body
2911/14413	. . . . .	Special lip, i.e. very top of preform neck	2911/1476	. . . .	of the bottom
2911/1442	. . . . .	Special neck	2911/14766	. . . .	of a layer
2911/14426	. . . . .	Wide-mouth	2911/14773	. . .	Ratio L/D
2911/14433	. . . . .	Closure retaining means	2911/1478	. . .	Angle
2911/1444	. . . . .	Threads	2911/14786	. . . .	of the lip, i.e. the very top of the preform neck
2911/14446	. . . . .	Interrupted threads	2911/14793	. . . .	of the neck
			2911/148	. . . .	of the threads
			2911/14806	of the tamper-evident band retaining ring
			2911/14813	of the flange
			2911/1482	of the body

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2911/14826	of the bottom
2911/14833	of a layer
2911/1484	. . .	Curvature, e.g. radius
2911/14846	. . . .	of the lip, i.e. the very top of the preform neck
2911/14853	. . . .	of the neck
2911/1486	. . . .	of the threads
2911/14866	. . . .	of the tamper-evident band retaining ring
2911/14873	. . . .	of the flange
2911/1488	. . . .	of the body
2911/14886	. . . .	of the bottom
2911/14893	. . . .	of a layer
2911/149	. .	Mentioned values not covered by B29B 2911/14586
2911/14906	. . .	Crystallinity
2911/14913	. . . .	at the neck portion
2911/1492	. . . .	at the flange portion
2911/14926	. . . .	at the body portion
2911/14933	. . . .	at the bottom portion
2911/1494	. . .	Surface roughness
2911/14946	. . . .	at the neck portion
2911/14953	. . . .	at the flange portion
2911/1496	. . . .	at the body portion
2911/14966	. . . .	at the bottom portion
2911/14973	. . .	Optical properties
2911/1498	. . .	Weight
2911/14986	. . .	Composition
2911/14993	. . . .	Recycled material