

**CPC****COOPERATIVE PATENT CLASSIFICATION****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****B29B 7/00**

**Mixing; Kneading** ( { for preparation of dough [A21C 1/00](#); } in general [B01F](#) ; combined with calendering [B29C 43/24](#), with injection [B29C 45/46](#), with extrusion [B29C 47/36](#) )

- B29B 7/002 . { **Methods** ( **chemical aspects** [C08J 3/00](#) ) }
- B29B 7/005 . . { for mixing in batches }
- B29B 7/007 . . { for continuous mixing }
  
- B29B 7/02 . non-continuous, with mechanical mixing or kneading devices, i.e. batch type
- B29B 7/04 . . with non-movable mixing or kneading devices
- B29B 7/06 . . with movable mixing or kneading devices
- B29B 7/08 . . . shaking, oscillating or vibrating
- B29B 7/085 . . . . { by means of axially movable pistons }
- B29B 7/10 . . . rotary
- B29B 7/103 . . . . { with rollers or the like in casings }
- B29B 7/106 . . . . { using rotary casings }
- B29B 7/12 . . . with single shaft
- B29B 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 ) }
- B29B 7/14 . . . . with screw or helix
- B29B 7/16 . . . . with paddles or arms
- B29B 7/18 . . . with more than one shaft
- B29B 7/183 . . . . { having a casing closely surrounding the rotors, e.g. of Banbury type ( with single shaft [B29B 7/125](#) ) }
- B29B 7/186 . . . . . { Rotors therefor }
- B29B 7/20 . . . . with intermeshing devices, e.g. screws
- B29B 7/22 . . Component parts, details or accessories; Auxiliary operations
- B29B 7/24 . . . for feeding
- B29B 7/242 . . . . { in measured doses }
- B29B 7/244 . . . . . { of several materials }
- B29B 7/246 . . . . { in mixers having more than one rotor and a casing closely surrounding the rotors, e.g. with feeding plungers }
- B29B 7/248 . . . . { with plungers for introducing the material, e.g. from below ( [B29B 7/246](#) takes precedence ) }
- B29B 7/26 . . . for discharging, e.g. doors
- B29B 7/263 . . . . { from the underside in mixers having more than one rotor and a casing closely surrounding the rotors }

B29B 7/266	.....	{ using sliding doors }
B29B 7/28	...	for measuring, controlling or regulating, e.g. viscosity control { ( <a href="#">B29B 7/242</a> takes precedence ) }
B29B 7/283	....	{ measuring data of the driving system, e.g. torque, speed, power }
B29B 7/286	....	{ measuring properties of the mixture, e.g. temperature, density ( <a href="#">B29B 7/283</a> takes precedence ) }
B29B 7/30	.	continuous, with mechanical mixing or kneading devices
B29B 7/32	..	with non-movable mixing or kneading devices
B29B 7/325	...	{ Static mixers ( in general <a href="#">B01F 5/0602</a> ) }
B29B 7/34	..	with movable mixing or kneading devices
B29B 7/36	...	shaking, oscillating or vibrating
B29B 7/365	....	{ by means of axially movable pistons }
B29B 7/38	...	rotary ( <a href="#">B29B 7/52</a> takes precedence )
B29B 7/385	....	{ fluid mixers }
B29B 7/40	....	with single shaft
B29B 7/401	.....	{ having a casing closely surrounding the rotor, e.g. with a plunger for feeding the material ( <a href="#">B29B 7/407</a> , <a href="#">B29B 7/42</a> take precedence ) }
B29B 7/402	.....	{ using a rotor-stator system with intermeshing elements, e.g. teeth ( <a href="#">B29B 7/408</a> , <a href="#">B29B 7/404</a> take precedence ) }
B29B 7/404	.....	{ with feeding or valve actuating means, e.g. with cleaning means }
B29B 7/405	.....	{ Mixing heads ( <a href="#">B29B 7/404</a> , <a href="#">B29B 7/42</a> take precedence; mixing heads without moving stirrer <a href="#">B29B 7/7457</a> ) }
B29B 7/407	.....	{ with a casing closely surrounding the rotor, e.g. with conical rotor }
B29B 7/408	.....	{ with mixing elements on a rotor co-operating with mixing elements, perpendicular to the axis of the rotor, fixed on a stator }
B29B 7/42	.....	with screw or helix
B29B 7/421	.....	{ with screw and additionally other mixing elements on the same shaft, e.g. paddles, discs, bearings, rotor blades of the Banbury type }
B29B 7/422	.....	{ with screw sections co-operating, e.g. intermeshing, with elements on the wall of the surrounding casing }
B29B 7/423	.....	{ and oscillating axially ( in general <a href="#">B01F 11/0057</a> ) }
B29B 7/424	.....	{ with conical screw surrounded by conical casing }
B29B 7/425	.....	{ with screw surrounded by a casing provided with grooves or cavities }
B29B 7/426	.....	{ with consecutive casings or screws, e.g. for charging, discharging, mixing }
B29B 7/427	.....	{ with independently driven screws rotating about the same axis, e.g. oscillating axially; with axially oscillating screws ( <a href="#">B29B 7/423</a> takes precedence ) }
B29B 7/428	.....	{ Parts or accessories, e.g. casings, feeding or discharging means }
B29B 7/429	.....	{ Screws ( <a href="#">B29B 7/421</a> takes precedence ) }
B29B 7/44	.....	with paddles or arms
B29B 7/46	....	with more than one shaft
B29B 7/465	.....	{ each shaft comprising rotor parts of the Banbury type in addition to screw parts }

B29B 7/48	.....	with intermeshing devices, e.g. screws
B29B 7/481	.....	{ provided with paddles, gears or discs ( <a href="#">B29B 7/482</a> takes precedence ) }
B29B 7/482	.....	{ provided with screw parts in addition to other mixing parts, e.g. paddles, gears, discs }
B29B 7/483	.....	{ the other mixing parts being discs perpendicular to the screw axis }
B29B 7/484	.....	{ with two shafts provided with screws, e.g. one screw being shorter than the other ( <a href="#">B29B 7/482</a> takes precedence ) }
B29B 7/485	.....	{ with three or more shafts provided with screws }
B29B 7/486	.....	{ with screws surrounded by a casing provided with grooves or cavities }
B29B 7/487	.....	{ with consecutive casings or screws, e.g. for feeding, discharging, mixing }
B29B 7/488	.....	{ Parts, e.g. casings, sealings; Accessories, e.g. flow controlling or throttling devices ( discharging <a href="#">B29B 7/582</a> ; feeding <a href="#">B29B 7/60</a> ) }
B29B 7/489	.....	{ Screws ( <a href="#">B29B 7/482</a> takes precedence ) }
B29B 7/50	....	with rotary casing
B29B 7/52	...	with rollers or the like, e.g. calenders
B29B 7/523	....	{ co-operating with casings }
B29B 7/526	.....	{ with two or more rollers }
B29B 7/54	....	with a single roller co-operating with a stationary member { other than the casing }
B29B 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 }
B29B 7/562	.....	{ with means for axially moving the material on the rollers }
B29B 7/564	.....	{ at least one of the rollers being provided with helicoidal grooves or ridges, e.g. followed by axial extrusion }
B29B 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 }
B29B 7/568	.....	{ with consecutive sets of rollers or a train of rollers }
B29B 7/58	..	Component parts, details or accessories; Auxiliary operations
B29B 7/582	...	{ for discharging, e.g. doors }
B29B 7/584	...	{ for mixers with rollers, e.g. wedges, guides, pressing means, thermal conditioning }
B29B 7/586	....	{ Drives }
B29B 7/588	....	{ cutting devices, e.g. movable cutting devices ( scrapers for stripping the material from rollers <a href="#">B29B 7/645</a> ) }
B29B 7/60	...	for feeding, e.g. end guides for the incoming material { ( <a href="#">B29B 7/7615</a> takes precedence; feeding predetermined amounts for mixing in general <a href="#">B01F 15/0216</a> ) }
B29B 7/603	....	{ in measured doses, e.g. proportioning of several materials }
B29B 7/606	....	{ specially adapted for feeding calenders or the like }
B29B 7/62	...	Rollers, e.g. with grooves ( <a href="#">B29B 7/564</a> takes precedence )
B29B 7/625	....	{ provided with cooling or heating means }

B29B 7/64	...	Stripping the material from the rollers
B29B 7/645	....	{ by means of a scraper moving in the axial direction of the rollers }
B29B 7/66	...	Recycling the material { ( <a href="#">B29B 7/566</a> takes precedence ) }
B29B 7/68	...	Positioning of rollers
B29B 7/70	...	Conditioning of rollers, e.g. cleaning
B29B 7/72	...	Measuring, controlling or regulating
B29B 7/722	....	{ Safety devices }
B29B 7/724	....	{ for continuous roller mixers, e.g. calenders ( <a href="#">B29B 7/722</a> takes precedence ) }
B29B 7/726	....	{ Measuring properties of mixture, e.g. temperature or density ( <a href="#">B29B 7/724</a> takes precedence ) }
B29B 7/728	....	{ Measuring data of the driving system, e.g. torque, speed, power, vibration ( <a href="#">B29B 7/724</a> takes precedence ) }
B29B 7/74	.	using other mixers or combinations of { mixers, e.g. of } dissimilar mixers; { Plant }
B29B 7/7404	..	{ Mixing devices specially adapted for foamable substances ( <a href="#">B29B 7/76</a> takes precedence ) }
B29B 7/7409	...	{ with supply of gas }
B29B 7/7414	....	{ with rotatable stirrer, e.g. using an intermeshing rotor-stator system ( <a href="#">B29B 7/7423</a> takes precedence ) }
B29B 7/7419	....	{ with static or injector mixer elements }
B29B 7/7423	.....	{ preceded or followed by rotatable stirring device }
B29B 7/7428	....	{ Methodical aspects }
B29B 7/7433	...	{ Plants }
B29B 7/7438	..	{ Mixing guns, i.e. hand-held mixing units having dispensing means ( <a href="#">B29B 7/761</a> , <a href="#">B29B 7/7678</a> take precedence ) }
B29B 7/7442	...	{ with driven stirrer }
B29B 7/7447	...	{ including means for feeding the components }
B29B 7/7452	...	{ for mixing components by spraying them into each other; for mixing by intersecting sheets }
B29B 7/7457	..	{ Mixing heads without moving stirrer ( <a href="#">B29B 7/7438</a> , <a href="#">B29B 7/76</a> take precedence ) }
B29B 7/7461	..	{ Combinations of dissimilar mixers }
B29B 7/7466	..	{ Combinations of similar mixers }
B29B 7/7471	..	{ Mixers in which the mixing takes place at the inlet of a mould, e.g. mixing chambers situated in the mould opening }
B29B 7/7476	..	{ Systems, i.e. flow charts or diagrams; Plants }
B29B 7/748	...	{ Plants ( <a href="#">B29B 7/7433</a> , <a href="#">B29B 7/7485</a> , <a href="#">B29B 7/7495</a> take precedence ) }
B29B 7/7485	...	{ with consecutive mixers, e.g. with premixing some of the components }
B29B 7/749	....	{ with stirring means for the individual components before they are mixed together }
B29B 7/7495	...	{ for mixing rubber }
B29B 7/76	..	{ Mixers } with stream-impingement mixing head
B29B 7/7605	...	{ having additional mixing arrangements ( <a href="#">B29B 7/7673</a> takes precedence ) }
B29B 7/761	...	{ of gun-type, i.e. hand-held units having dispensing means ( <a href="#">B29B 7/7678</a> takes precedence ) }

- B29B 7/7615     ...     { characterised by arrangements for controlling, measuring or regulating, e.g. for feeding or proportioning the components }
- B29B 7/7621     ....     { involving introducing a gas or another component in at least one of the components }
- B29B 7/7626     ....     { using measuring chambers of piston or plunger type ( [B29B 7/7621](#) takes precedence; for mixing in general [B01F 15/0454](#) ) }
- B29B 7/7631     ...     { Parts; Accessories ( [B29B 7/7684](#) takes precedence ) }
- B29B 7/7636     ....     { Construction of the feed orifices, bores, ports }
- B29B 7/7642     .....     { Adjustable feed orifices, e.g. for controlling the rate of feeding }
- B29B 7/7647     ....     { Construction of the mixing conduit module or chamber part }
- B29B 7/7652     ....     { Construction of the discharge orifice, opening or nozzle }
- B29B 7/7657     .....     { Adjustable discharge orifices, openings or nozzle openings, e.g. for controlling the rate of dispensing }
- B29B 7/7663     ...     { the mixing head having an outlet tube with a reciprocating plunger, e.g. with the jets impinging in the tube }
- B29B 7/7668     ....     { having a second tube intersecting the first one with the jets impinging in the second tube }
- B29B 7/7673     ....     { having additional mixing arrangements ( [B29B 7/7668](#) takes precedence ) }
- B29B 7/7678     ....     { of the gun type, i.e. hand-held units }
- B29B 7/7684     ....     { Parts; Accessories }
- B29B 7/7689     .....     { Plunger constructions }
- B29B 7/7694     .....     { comprising recirculation channels; ducts formed in the plunger }
- B29B 7/78     ..     by gravity, e.g. falling particle mixers
  
- B29B 7/80     .     Component parts, details or accessories; Auxiliary operations ( [B29B 7/22](#), [B29B 7/58](#) take precedence, { cleaning mixers [B01F 15/00019](#) } )
- B29B 7/801     ..     { Valves }
- B29B 7/802     ..     { Constructions or methods for cleaning the mixing or kneading device ( cleaning in general [B08B](#) ) }
- B29B 7/803     ...     { Cleaning of mixers of the gun type, stream-impingement type, mixing heads }
- B29B 7/805     ....     { Cleaning of the mixing conduit, module or chamber part }
- B29B 7/806     ....     { Cleaning of the discharge opening, e.g. orifice of the dispenser }
- B29B 7/807     ....     { Cleaning of the central body of the plunger }
- B29B 7/808     ....     { Cleaning of the plunger tip }
- B29B 7/82     ..     Heating or cooling
- B29B 7/823     ...     { Temperature control }
- B29B 7/826     ...     { Apparatus therefor }
- B29B 7/84     ..     Venting or degassing { ;Removing liquids, e.g. by evaporating components }
- B29B 7/842     ...     { Removing liquids in liquid form }
- B29B 7/845     ...     { Venting, degassing or removing evaporated components in devices with rotary stirrers }
- B29B 7/847     ....     { Removing of gaseous components before or after mixing }
- B29B 7/86     ..     for working at sub- or superatmospheric pressure { ( [B01F 13/06](#) takes precedence ) }
- B29B 7/88     ..     Adding charges, { i.e. additives }

- B29B 7/885 . . . { with means for treating, e.g. milling, the charges } ( [B29B 7/905](#) takes precedence ) ]
- B29B 7/90 . . . Fillers or reinforcements { e.g. fibres }
- B29B 7/905 . . . . { with means for pretreatment of the charges or fibres }
- B29B 7/92 . . . . Wood chips or wood fibres
- B29B 7/94 . . . Liquid charges
- B29B 7/945 . . . . { involving coating particles }

## **B29B 9/00**      **Making granules** ( in general [B01J](#) ; chemical aspects [C08J 3/12](#) )

- B29B 9/02 . by dividing preformed material
- B29B 9/04 . . in the form of plates or sheets
- B29B 9/06 . . in the form of filamentary material, e.g. combined with extrusion
- B29B 9/065 . . . { under-water, e.g. underwater pelletizers }
- B29B 9/08 . by agglomerating smaller particles
- B29B 9/10 . by moulding the material, i.e. treating it in the molten state
- B29B 9/12 . characterised by structure or composition
- B29B 2009/125 . . Micropellets, microgranules, microparticles
- B29B 9/14 . . fibre-reinforced
- B29B 9/16 . Auxiliary treatment of granules
- B29B 2009/161 . . Absorbing, i.e. introducing a gas, a liquid or a solid material into the granules
- B29B 2009/163 . . Coating, i.e. applying a layer of liquid or solid material on the granule
- B29B 2009/165 . . Crystallizing granules
- B29B 2009/166 . . Deforming granules to give a special form, e.g. spheroidizing, rounding
- B29B 2009/168 . . Removing undesirable residual components, e.g. solvents, unreacted monomers; Degassing

## **B29B 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](#) } )

- B29B 11/02 . by dividing preformed material, e.g. sheets, rods
- B29B 11/04 . by assembling preformed material
- B29B 11/06 . by moulding the material
- B29B 11/08 . . Injection moulding
- B29B 11/10 . . Extrusion moulding
- B29B 11/12 . . Compression moulding
- B29B 11/14 . characterised by structure or composition
- B29B 11/16 . . comprising fillers or reinforcement { ( non-woven fabrics per se [D04H 1/00](#), [D04H 3/00](#) ) }

- B29B 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](#) }
- B29B 2013/002**      .    Extracting undesirable residual components, e.g. solvents, unreacted monomers, from material to be moulded
- B29B 2013/005**      .    Degassing undesirable residual components, e.g. gases, unreacted monomers, from material to be moulded
- B29B 13/007**      .    { Treatment of sinter powders }
- B29B 13/02**      .    by heating ( [B29B 13/06](#), [B29B 13/08](#) take precedence )
- B29B 13/021**      . .    { Heat treatment of powders }
- B29B 13/022**      . .    { Melting the material to be shaped }
- B29B 13/023**      . .    { Half-products, e.g. films, plates }
- B29B 13/024**      . . .    { Hollow bodies, e.g. tubes or profiles }
- B29B 13/025**      . . . .    { Tube ends }
- B29B 2013/026**      . . .    Obtaining a uniform temperature over the whole surface of films or tubes
- B29B 2013/027**      . . .    Obtaining a temperature gradient over the surface of films or tubes
- B29B 2013/028**      . . .    Obtaining a temperature gradient across the wall thickness of plates or tubes
- B29B 13/04**      .    by cooling { ( [cooling moulded articles or half products B29C 35/16](#) ) }
- B29B 13/045**      . .    { of powders or pellets }
- B29B 13/06**      .    by drying ( [B29B 13/08](#) takes precedence; { drying moulded articles or half products [B29C 37/0092](#) } )
- B29B 13/065**      . .    { of powder or pellets }
- B29B 13/08**      .    by using wave energy or particle radiation
- B29B 13/10**      .    by grinding, e.g. by triturating; by sieving; by filtering
- B29B 15/00**      **Pretreatment of the material to be shaped, not covered by groups [B29B 7/00](#) to [B29B 13/00](#)**
- B29B 15/02**      .    of crude rubber, gutta-percha, or similar substances ( [tapping latex A01G](#) ; Chemical aspects [C08C](#) )
- B29B 15/023**      . .    { Breaking up rubber bales }
- B29B 15/026**      . .    { Baling of rubber }
- B29B 15/04**      . .    Coagulating devices
- B29B 15/06**      . .    Washing devices
- B29B 15/08**      .    of reinforcements or fillers ( [chemical aspects C08J](#) , K )
- B29B 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 67/14C](#)

- B29B 15/105 . . . { of reinforcement of definite length with a matrix in solid form e.g. powder, fibre or sheet form ( calendering [B29C 70/506](#) ) }
- B29B 15/12 . . . of reinforcements of indefinite length
- B29B 15/122 . . . . { with a matrix in liquid form, e.g. as melt, solution or latex }
- B29B 15/125 . . . . . { by dipping }
- B29B 15/127 . . . . . { by spraying }
- B29B 15/14 . . . . of filaments or wires

**B29B 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](#) )

- B29B 17/0005 . { Direct recuperation and re-use of scrap material during moulding operation, i.e. feed-back of used material }
- B29B 2017/001 . Pretreating the materials before recovery
- B29B 2017/0015 .. Washing, rinsing
- B29B 2017/0021 .. Dividing in large parts
- B29B 17/0026 . { by agglomeration or compacting }
- B29B 2017/0031 .. Melting the outer surface of compressed waste, e.g. for forming briquets by expelling the compressed waste material through a heated tool
- B29B 17/0036 .. { of large particles, e.g. beads, granules, pellets, flakes, slices }
- B29B 17/0042 .. { for shaping parts, e.g. multilayered parts with at least one layer containing regenerated plastic }
- B29B 17/0047 .. { Compacting complete waste articles }
- B29B 17/0052 . . . { Hollow articles, e.g. bottles }
- B29B 2017/0057 . . . . Externally powered deformation tools, e.g. tools being part of relatively big non domestic installations, powered by motors
- B29B 2017/0063 . . . . Manually driven deformation tools, e.g. tools being part of domestic installations
- B29B 2017/0068 . . . . Softening the hollow articles by heat and causing permanent deformation
- B29B 2017/0073 . . . . Removing caps or labels during deformation
- B29B 2017/0078 . . . . Maintaining the deflated state, e.g. by mounting original screw lids after deformation
- B29B 2017/0084 . . . . Deflating the hollow articles by vacuum; Details of the nozzles used in the vacuum generating devices.
- B29B 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
- B29B 2017/0094 . Mobile recycling devices, e.g. devices installed in truck trailers



- B29B 17/02 . Separating plastics from other materials
- B29B 2017/0203 .. Separating plastics from plastics
- B29B 17/0206 .. { Selectively separating reinforcements from matrix material by destroying the interface bound before desintegrating the matrix to particles or powder, e.g. from tires or belts }
- B29B 17/021 ... { using local heating of the reinforcement }
- B29B 2017/0213 .. Specific separating techniques
- B29B 2017/0217 ... Mechanical separating techniques; devices therefor
- B29B 2017/022 .... Grippers, hooks, piercing needles, fingers, e.g. mounted on robots
- B29B 2017/0224 .... Screens, sieves
- B29B 2017/0227 .... Vibratory or shaking tables
- B29B 2017/0231 .... Centrifugating, cyclones
- B29B 2017/0234 .... using gravity, e.g. separating by weight differences in a wind sifter
- B29B 2017/0237 .... using density difference
- B29B 2017/0241 ..... in gas, e.g. air flow
- B29B 2017/0244 ..... in liquids
- B29B 2017/0248 .... Froth flotation, i.e. wherein gas bubbles are attached to suspended particles in an aerated liquid
- B29B 2017/0251 .... Hydropulping for converting the material under the influence of water into a slurry, e.g. for separating laminated plastic from paper
- B29B 2017/0255 ... using different melting or softening temperatures of the materials to be separated
- B29B 2017/0258 .... using heated surfaces for selective softening or melting of at least one plastic ingredient
- B29B 2017/0262 ... using electrical characteristics
- B29B 2017/0265 .... Electrostatic separation
- B29B 2017/0268 ... Separation of metals
- B29B 2017/0272 .... Magnetic separation
- B29B 2017/0275 ... using chemical sensors, e.g. analysing gasified constituents
- B29B 2017/0279 ... Optical identification, e.g. cameras or spectroscopy
- B29B 2017/0282 ... using information associated with the materials, e.g. labels on products
- B29B 2017/0286 ... Cleaning means used for separation
- B29B 2017/0289 .... Washing the materials in liquids
- B29B 2017/0293 ... Dissolving the materials in gases or liquids
- B29B 2017/0296 .... Dissolving the materials in aqueous alkaline solutions, e.g. NaOH or KOH
- B29B 17/04 . Disintegrating plastics, { e.g. by milling } ( [B29B 9/02](#), [B29B 11/02](#), [B29B 13/10](#), { [B29B 17/02](#) } take precedence )
- B29B 17/0404 .. { to powder }
- B29B 17/0408 ... { using cryogenic systems }
- B29B 17/0412 .. { to large particles, e.g. beads, granules, flakes, slices }
- B29B 2017/0416 .. Cooling the plastics before disintegration, e.g. freezing
- B29B 2017/042 .. Mixing disintegrated particles or powders with other materials, e.g. with virgin materials

B29B 2017/0424	..	Specific disintegrating techniques; devices therefor
B29B 2017/0428	...	Jets of high pressure fluid
B29B 2017/0432	....	Abrasive blasting, i.e. the jets being charged with abrasives
B29B 2017/0436	...	Immersion baths
B29B 2017/044	...	Knives
B29B 2017/0444	...	Cutting wires, e.g. vibrating wires
B29B 2017/0448	...	Cutting discs
B29B 2017/0452	....	the discs containing abrasives
B29B 2017/0456	...	Pressing tools with calibrated openings, e.g. in sizing plates, for desintegrating solid materials
B29B 2017/046	...	Extruder as pressing tool with calibrated die openings for forming and disintegrating pasty or melted material
B29B 2017/0464	...	Solid state shear extrusion pulverisation
B29B 2017/0468	...	Crushing, i.e. disintegrating into small particles
B29B 2017/0472	...	Balls or rollers in a container
B29B 2017/0476	...	Cutting or tearing members, e.g. spiked or toothed cylinders or intermeshing rollers
B29B 2017/048	...	Cutter-compactors, e.g. of the EREMA type
B29B 2017/0484	...	Grinding tools, roller mills or disc mills
B29B 2017/0488	...	Hammers or beaters
B29B 2017/0492	...	Projecting the material on stationary or moving impact surfaces or plates
B29B 2017/0496	...	Pyrolysing the materials

**B29B 2911/00**      **Indexing scheme related to making preforms for blow-moulding bottles or the like**  
 ( not used )

B29B 2911/14	.	Layer configuration, geometry, dimensions or physical properties of preforms for blow-moulding bottles or the like ( not used )
B29B 2911/14006	..	layer configuration ( not used )
B29B 2911/14013	...	monolayered
B29B 2911/1402	....	at neck portion
B29B 2911/14026	....	at flange portion
B29B 2911/14033	....	at body portion
B29B 2911/1404	....	at bottom portion
B29B 2911/14046	...	multilayered
B29B 2911/14053	....	at neck portion
B29B 2911/1406	.....	partially
B29B 2911/14066	....	at flange portion
B29B 2911/14073	.....	partially
B29B 2911/1408	....	at body portion
B29B 2911/14086	.....	partially
B29B 2911/14093	....	at bottom portion
B29B 2911/141	.....	partially
B29B 2911/14106	....	having at least one layer

B29B 2911/14113	.....	having at least two layers
B29B 2911/1412	.....	having at least three layers
B29B 2911/14126	.....	having more than three layers
B29B 2911/14133	....	having at least one layer being injected
B29B 2911/1414	.....	having at least two layers being injected
B29B 2911/14146	.....	having at least three layers being injected
B29B 2911/14153	.....	having more than three layers being injected
B29B 2911/1416	....	having at least one layer being extruded
B29B 2911/14166	.....	having at least two layers being extruded
B29B 2911/14173	.....	having at least three layers being extruded
B29B 2911/1418	.....	having more than three layers being extruded
B29B 2911/14186	....	having at least one layer being thermoformed
B29B 2911/14193	.....	having at least two layers being thermoformed
B29B 2911/142	.....	having at least three layers being thermoformed
B29B 2911/14206	.....	having more than three layers being thermoformed
B29B 2911/14213	....	having at least one layer being compression moulded
B29B 2911/1422	.....	having at least two layers being compression moulded
B29B 2911/14226	.....	having at least three layers being compression moulded
B29B 2911/14233	.....	having more than three layers being compression moulded
B29B 2911/1424	....	having at least one layer being applied using techniques not covered by <a href="#">B29B 2911/14133</a> to <a href="#">B29B 2911/14213</a>
B29B 2911/14246	.....	having at least two layers being applied using said techniques
B29B 2911/14253	.....	having at least three layers being applied using said techniques
B29B 2911/1426	.....	having more than three layers being applied using said techniques
B29B 2911/14266	.....	Type of said techniques not covered by <a href="#">B29B 2911/14133</a> to <a href="#">B29B 2911/14213</a>
B29B 2911/14273	.....	Spray coating
B29B 2911/1428	.....	Dip coating
B29B 2911/14286	.....	Powder coating
B29B 2911/14293	.....	Casting
B29B 2911/143	....	Interaction between at least two layers
B29B 2911/14306	.....	by welding
B29B 2911/14313	.....	by using adhesives
B29B 2911/1432	..	Geometry ( <a href="#">not used</a> )
B29B 2911/14326	...	Variable wall thickness
B29B 2911/14333	...	Variable diameter
B29B 2911/1434	...	Ribs or protrusions
B29B 2911/14346	...	Internal separating wall
B29B 2911/14353	...	Special shape
B29B 2911/1436	....	Special overall shape
B29B 2911/14366	.....	Conical
B29B 2911/14373	.....	Axially asymmetrical
B29B 2911/1438	.....	Elliptic or oval cross-section shape

B29B 2911/14386	.....	Rectangular cross-section shape
B29B 2911/14393	.....	Hexagonal cross-section shape
B29B 2911/144	.....	Shape allows stacking or nesting
B29B 2911/14406	....	Special shape of specific parts of preform
B29B 2911/14413	.....	Special lip, i.e. very top of preform neck
B29B 2911/1442	.....	Special neck
B29B 2911/14426	.....	Wide-mouth
B29B 2911/14433	.....	Closure retaining means
B29B 2911/1444	.....	Threads
B29B 2911/14446	.....	Interrupted threads
B29B 2911/14453	.....	Inner threads
B29B 2911/1446	.....	No threads
B29B 2911/14466	.....	Tamper-evident band retaining ring
B29B 2911/14473	.....	Special flange
B29B 2911/1448	.....	Special body
B29B 2911/14486	.....	Special bottom
B29B 2911/14493	.....	Special sprue, i.e. injection mark
B29B 2911/145	.....	Special pinch-off portion
B29B 2911/14506	...	Auxiliary parts or inserts
B29B 2911/14513	....	Handle
B29B 2911/1452	....	Closure
B29B 2911/14526	....	Transport means
B29B 2911/14533	....	Dispensing spout
B29B 2911/1454	....	Parts to assist orientation of preform, e.g. in mould
B29B 2911/14546	.....	at neck portion
B29B 2911/14553	.....	at flange portion
B29B 2911/1456	.....	at body portion
B29B 2911/14566	.....	at bottom portion
B29B 2911/14573	....	Preform, i.e. neck, flange, body and bottom, made of several individual parts
B29B 2911/1458	.....	Finish neck ring
B29B 2911/14586	..	Mentioned dimensions ( not used )
B29B 2911/14593	...	Wall thickness
B29B 2911/146	....	of the lip, i.e. the very top of the preform neck
B29B 2911/14606	....	of the neck
B29B 2911/14613	....	of the threads
B29B 2911/1462	....	of the tamper-evident band retaining ring
B29B 2911/14626	....	of the flange
B29B 2911/14633	....	of the body
B29B 2911/1464	....	of the bottom
B29B 2911/14646	....	of a layer
B29B 2911/14653	...	Diameter, D
B29B 2911/1466	....	of the lip, i.e. the very top of the preform neck

B29B 2911/14666	....	of the neck
B29B 2911/14673	....	of the threads
B29B 2911/1468	....	of the tamper-evident band retaining ring
B29B 2911/14686	....	of the flange
B29B 2911/14693	....	of the body
B29B 2911/147	....	of the bottom
B29B 2911/14706	....	of a layer
B29B 2911/14713	...	Height, length, L
B29B 2911/1472	....	of the lip, i.e. the very top of the preform neck
B29B 2911/14726	....	of the neck
B29B 2911/14733	....	of the threads
B29B 2911/1474	....	of the tamper-evident band retaining ring
B29B 2911/14746	....	of the flange
B29B 2911/14753	....	of the body
B29B 2911/1476	....	of the bottom
B29B 2911/14766	....	of a layer
B29B 2911/14773	...	Ratio L/D
B29B 2911/1478	...	Angle
B29B 2911/14786	....	of the lip, i.e. the very top of the preform neck
B29B 2911/14793	....	of the neck
B29B 2911/148	....	of the threads
B29B 2911/14806	....	of the tamper-evident band retaining ring
B29B 2911/14813	....	of the flange
B29B 2911/1482	....	of the body
B29B 2911/14826	....	of the bottom
B29B 2911/14833	....	of a layer
B29B 2911/1484	...	Curvature, e.g. radius
B29B 2911/14846	....	of the lip, i.e. the very top of the preform neck
B29B 2911/14853	....	of the neck
B29B 2911/1486	....	of the threads
B29B 2911/14866	....	of the tamper-evident band retaining ring
B29B 2911/14873	....	of the flange
B29B 2911/1488	....	of the body
B29B 2911/14886	....	of the bottom
B29B 2911/14893	....	of a layer
B29B 2911/149	..	Mentioned values not covered by <a href="#">B29B 2911/14586</a>
B29B 2911/14906	...	Crystallinity
B29B 2911/14913	....	at the neck portion
B29B 2911/1492	....	at the flange portion
B29B 2911/14926	....	at the body portion
B29B 2911/14933	....	at the bottom portion
B29B 2911/1494	...	Surface roughness

B29B 2911/14946	....	at the neck portion
B29B 2911/14953	....	at the flange portion
B29B 2911/1496	....	at the body portion
B29B 2911/14966	....	at the bottom portion
B29B 2911/14973	...	Optical properties
B29B 2911/1498	...	Weight
B29B 2911/14986	...	Composition
B29B 2911/14993	....	Recycled material