B28B

SHAPING CLAY OR OTHER CERAMIC COMPOSITIONS, SLAG, OR MIXTURES CONTAINING CEMENTITIOUS MATERIAL, e.g. PLASTER (foundry moulding B22C; working stone or stone-like material B28D; shaping of substances in a plastic state, in general B29C; making layered products not composed wholly of these substances B32B; shaping in situ, see the relevant classes of section E)

Definition statement

This place covers:
The methods and apparatuses covered manufacture of the shaped article at a location remote from its intended use, i.e. a pre-fabricated article.

Relationships with other classification places

The preceding image includes references to B28B, E04G, C04B, B28C.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

| The material | (a) clay or other ceramic compositions (b) slag (c) mixtures with water-setting properties given by clay, cementitious material, or slag. |
B28B 1/002

{assembled from preformed elements}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>To tiles, bricks or the like</td>
<td>B28B 19/0053</td>
</tr>
<tr>
<td>By building-up from preformed elements</td>
<td>B28B 21/70</td>
</tr>
<tr>
<td>Assembled from preformed parts</td>
<td>B28B 23/22</td>
</tr>
</tbody>
</table>

Special rules of classification

"The material" used to hold the assembled preformed elements together is as defined in the subclass.
B28B 1/004

{Devices for shaping artificial aggregates from ceramic mixtures or from mixtures containing hydraulic binder (from slag C04B 5/00; composition of artificial aggregates C04B 18/02)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 1/005

{Devices or processes for obtaining articles having a marble appearance (producing decorative effects B44C; design of stone surfaces, e.g. marble, B44F 9/04)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Special rules of classification

Characteristic features concerning the feeding of the material should be classified in B28B 13/02.
B28B 1/007
{by freezing the material}

Definition statement
This place covers:

Illustrative example of subject matter classified in this group:

References
Limiting references
This place does not cover:

| Manufacture of workpieces or articles from metallic powder characterised by the manner of compacting or sintering | B22F 3/00 |
| B freeze-casting or in a supercritical fluid | B22F 3/222 |

References out of a residual place
Examples of places in relation to which this place is residual:

| Forming processes; Processing powders of inorganic compounds preparatory to the manufacturing of ceramic products | C04B 35/622 |
Definition statement

This place covers:

Making a base body (11) in a conventional manner with at least one external dimension (12), smaller than a corresponding desired dimension (13), applying a compensating coating (14) to the base body or its top.
**B28B 1/02**

by turning or jiggering {in moulds or moulding surfaces on rotatable supports}

**Definition statement**

*This place covers:*

Potter's wheel and handtools associated with such a device.

---

**References**

**Limiting references**

*This place does not cover:*

| Methods or machines specially adapted for the production of tubular articles | B28B 21/00 |
**B28B 1/04**

by tamping or ramming (followed by pressing B28B 3/02)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

---

**References**

**Limiting references**

*This place does not cover:*

| Tamping or ramming the material or the mould elements to produce tunular articles | B28B 21/12 |
B28B 1/045
{combined with vibrating or jolting}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 1/08

by vibrating or jolting {{of moulding sand B22C 15/10; of concrete in general E04G 21/063}}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

Operating with systems involving rotary unbalanced masses B06B 1/16

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Vibrating for the production of tubular articles B28B 21/14

Informative references

Attention is drawn to the following places, which may be of interest for search:

Of concrete in general E04G 21/063
B28B 1/081
{Vibration-absorbing means}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

![Diagram of vibration-absorbing means]

B28B 1/082
{combined with a vacuum, e.g. for moisture extraction (in general E04G 21/061)}

Definition statement
This place covers:
Illustrative example of subject matter matter classified in this group:

![Diagram of vacuum-assisted vibration]

References
Informative references
Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>For humidifying or dehumidifying</td>
<td>B28B 7/46</td>
</tr>
<tr>
<td>By vibrating the composition before or during moulding</td>
<td>B29C 67/244</td>
</tr>
</tbody>
</table>
For moisture extraction in general

B28B 1/084

{the vibrating moulds or cores being moved horizontally for making strands of moulded articles}

Definition statement

This place covers:

Slipform casting process having an extruder screw.
References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparatus designed for railless operation</td>
<td>E01C 19/4893</td>
</tr>
<tr>
<td>The pipes being made in situ</td>
<td>F16L 1/038</td>
</tr>
</tbody>
</table>

Special rules of classification

Slipform casting process having an extruder screw also to be classified in B28B 3/224 "self-propelled screw extruders" TBC.

B28B 1/087

by means acting on the mould \{; Fixation thereof to the mould\}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

FIG. 4
B28B 1/0873
{the mould being placed on vibrating or jolting supports, e.g. moulding tables}

Definition statement
This place covers:

Illustrative example of subject matter classified in this group:
B28B 1/093

by means directly acting on the material, e.g. by cores wholly or partly immersed in the material {or elements acting on the upper surface of the material} ((B28B 1/084 takes precedence; } internal vibrators for compacting concrete in situ E04G 21/08)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

| The vibrating moulds or cores being moved horizontally for making strands of moulded articles | B28B 1/084 |
| Adapted to impart a smooth finish to the paving, e.g. tamping or vibrating finishers | E01C 19/40 |
| Making use of vibrating or jolting tools acting upon the surface of the concrete, whether or not provided with parts penetrating the concrete | E04G 21/066 |

Special rules of classification

By cores wholly or partly immersed in the material is to be classified in B28B 1/0935.
B28B 1/0935
{using only elements wholly or partly immersed in the material, e.g. cores}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

WO 94/00281

FIG. 1
and applying pressure otherwise than by the use of presses

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**References**

**Limiting references**

*This place does not cover:*

Wherein a ram exerts pressure on the material in a moulding space; combined with vibrating or jolting

| B28B 3/022 |
**B28B 1/105**

{this load also being actively vibrated or jolted}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image1)

**B28B 1/14**

by simple casting, the material being neither forcibly fed nor positively compacted (for molten material **B28B 1/54**)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image2)
**B28B 1/16**

for producing layered articles (coating **B28B 11/04**)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

**Special rules of classification**

Layered products essentially comprising a water-setting substance, e.g. concrete, plaster, asbestos cement, or like builders’ material  

**B32B 13/00**
B28B 1/20
by centrifugal or rotational casting (slip-casting involving rotation of the mould B28B 1/28; for molten material B28B 1/54)

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Manufacture of workpieces or articles from metallic powder by centrifugal forces</th>
<th>B22F 3/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shaping glass by centrifuging</td>
<td>C03B 19/04</td>
</tr>
</tbody>
</table>

Special rules of classification
- B28B 21/00 centrifugal or rotational casting with methods or machines specially adapted for the production of tubular articles
- B28B 23/20 centrifugal or rotational casting wherein the elements are reinforcing members
**B28B 1/24**

by injection moulding {(injection moulding of ceramic slips **B28B 1/265**; of tubular articles **B28B 21/38**)}

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

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**References**

**Informative references**

Attention is drawn to the following places, which may be of interest for search:

| Manufacture of workpieces or articles from metallic powder by injection moulding | B22F 3/22 |
by slip-casting, i.e. by casting a suspension or dispersion of the material in a liquid-absorbent or porous mould, the liquid being allowed to soak into or pass through the walls of the mould; Moulds therefor (B28B 1/52 takes precedence) {; specially for manufacturing articles starting from a ceramic slip; Moulds therefor (of tubular articles B28B 21/08)}

References

Limiting references

This place does not cover:

| Specially adapted for producing articles from mixtures containing fibres | B28B 1/52 |
| Slip casting of tubular articles | B28B 21/08 |

Special rules of classification

For chemical aspects see: C04B 33/28 slipcasting of clay-ware.

For manufacturing of workpieces or articles from metallic powder see: B22F 3/22 for producing castings from a slip.

B28B 1/261

{Moulds therefor (absorbent moulds in general B28B 7/344)}

Definition statement

This place covers:
References

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Absorbent moulds in general | B28B 7/344 |

**B28B 1/266**

{Means for counteracting the pressure being applied on the slip or on the moulded article in the mould, e.g. means for clamping the moulds parts together in a frame-like structure}

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

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**References**

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Fastening means, clamping means for mould parts in general | B28B 2007/005 |
B28B 1/268
{by dipping moulding surfaces in the slip (in general B28B 1/38)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Informative references
Attention is drawn to the following places, which may be of interest for search:

| Dipping moulding surfaces in the slip in general | B28B 1/38 |
B28B 1/29
by profiling or strickling the material in open moulds or on moulding surfaces
{(in rotary moulds B28B 1/02; by means of profiled rollers B28B 3/12,
B28B 3/123)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

Special rules of classification
Profiling or strickling in situ: E01C 19/00 machines, tools or auxiliary devices for preparing or
distributing paving materials.

B28B 1/32
by projecting, e.g. spraying (spraying in general B05B, B05D)

References
Application-oriented references
Examples of places where the subject matter of this place is covered when specially adapted, used for
a particular purpose, or incorporated in a larger system:

| Producing tubular articles by projecting, e.g. spraying | B28B 21/44 |

Informative references
Attention is drawn to the following places, which may be of interest for search:

| Spraying in general | B05B |
B28B 1/34
by centrifugal force {(centrifugally acting implements for applying plaster or the like to walls E04F 21/10)}

References

Application-oriented references
Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

| Producing tubular articles by centrifugal moulding | B28B 21/30 |

B28B 1/38
by dipping (in general B05C, B05D {; shaping from synthetic resin B29C 41/14})

References

Application-oriented references
Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

| Producing tubular articles by dipping | B28B 21/46 |

Informative references
Attention is drawn to the following places, which may be of interest for search:

| By dipping in general | B05C |

B28B 1/40
by wrapping, e.g. winding

References

Application-oriented references
Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

| Producing tubular articles by wrapping, e.g. winding | B28B 21/48 |
B28B 1/44
by forcing cores into filled moulds for forming hollow articles

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Limiting references
This place does not cover:
Removing the material from the filled mould

Special rules of classification
The cores being forced into the filled moulds displace the material inside the filled moulds.
**B28B 1/48**

by removing material from solid section preforms for forming hollow articles, e.g. by punching or boring

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B28B 1/50

specially adapted for producing articles of expanded material, e.g. cellular concrete (chemical aspects {or making expanded aggregate} C04B)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Special rules of classification

Mixers for producing cellular concrete:

- B28C 5/1269
- B28C 5/381
- B01F

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALC</td>
<td>Autoclaved lightweight concrete</td>
</tr>
<tr>
<td>PC</td>
<td>Porous concrete</td>
</tr>
</tbody>
</table>

In patent documents, the following words/expressions are often used as synonyms:

- "porous concrete",
- "(autoclaved) lightweight concrete",
- "cellular concrete",
- "foam(ed) concrete" and
- "aerated concrete".
B28B 1/526
{by delivering the materials on a conveyor of the endless-belt type}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B28B 1/527
{by delivering the materials on a rotating drum, e.g. a sieve drum, from which the materials are picked up by a felt}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
specially adapted for producing articles from molten material, e.g. slag {refractory ceramic materials} (chemical aspects C04B {; from molten bituminous material B29C})

Definition statement

This place covers:

E.g. sulfur/sulphur concrete
B28B 3/00
Producing shaped articles from the material by using presses (shaping on moving conveyors B28B 5/00); Presses specially adapted therefor (presses in general B30B)

Relationships with other classification places

The preceding image includes references to B30B, B28B/00, B29C, B22F/00, B29C/00.

References

Limiting references
This place does not cover:

Drive systems for presses B30B

Informative references
Attention is drawn to the following places, which may be of interest for search:

Manufacture of workpieces or articles from metallic powder characterised by the manner of compacting or sintering B22F 3/00
Extrusion moulding of plastics B29C 48/00
Aspects related to presses in general B30B
B28B 3/003

{Pressing by means acting upon the material via flexible mould wall parts, e.g. by means of inflatble cores, isostatic presses (isostatic presses in general B30B 5/02)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

Flexible or resilient parts on a press ram, i.e. foamed or rubber parts. B28B 3/024

Informative references

Attention is drawn to the following places, which may be of interest for search:

Isostatic presses in general B30B 5/02

Special rules of classification

The flexible mould wall parts change shape due to an externally generated pressure (air, oil etc.) other than the reaction force caused by the pressing of a ram head.
**B28B 3/02**

Wherein a ram exerts pressure on the material in a moulding space; Ram heads of special form

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

**References**

**Informative references**

Attention is drawn to the following places, which may be of interest for search:

| Using a ram exerting pressure on the material in a moulding space | B30B 11/02 |
**B28B 3/021**

{Ram heads of special form}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

EP 1 541 308 A2
B28B 3/022

{combined with vibrating or jolting}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

Vibrating or jolting by means acting on the mould, i.e. vibrating tables

B28B 1/087

Informative references

Attention is drawn to the following places, which may be of interest for search:

Using a ram exerting pressure on the material in a moulding space, whereby the material is subjected to vibrations

B30B 11/022
B28B 3/024

{the pressure on the material being transmitted through flexible or resilient wall parts, e.g. flexible cushions on the ramming surface, resilient wall parts pressing as a result of deformation caused by ram pressure}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B28B 3/025**

{Hot pressing, e.g. of ceramic materials}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

**Fig. 2**

---

**References**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simultaneously compacting and sintering of workpieces or articles from</td>
<td><strong>B22F 3/14</strong></td>
</tr>
<tr>
<td>metallic powder</td>
<td></td>
</tr>
<tr>
<td>Pressure sintering</td>
<td><strong>C04B 35/645</strong></td>
</tr>
</tbody>
</table>
B28B 3/027

{using a bottom press ram actuated upwardly towards mould covers}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 3/06

with two or more ram and mould sets

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram](image_url)
B28B 3/08

with two or more rams per mould

Definition statement

This place covers:

Wherein the ram heads work in opposite directions:

B28B 3/083

{The juxtaposed rams working in the same direction}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

**B28B 3/086**

*{The rams working in different directions}*

**Definition statement**

*This place covers:*

U.S. Patent  Nov. 8, 1983  Sheet 3 of 4  4,414,028
B28B 3/10

each charge of material being compressed against previously formed body

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 3/12

wherein one or more rollers exert pressure on the material

Definition statement

This place covers:

U.S. Patent  Jun. 6, 2000  Sheet 4 of 5  6,071,458

FIG. 4.
B28B 3/123
{on material in moulds or on moulding surfaces moving continuously underneath or between the rollers, e.g. on an endless belt}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 3/126
{on material passing directly between the co-operating rollers}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 3/14
with co-operating pocketed rollers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

FIG 2
**B28B 3/18**

Roller-and-ring machines, i.e. with roller disposed within a ring and cooperating with the inner surface of the ring

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram of roller-and-ring machine]

**B28B 3/20**

wherein the material is extruded {(extrusion moulding of plastics B29C 48/00)}

**References**

*Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| Producing tubular articles by extruding | B28B 21/52 |
B28B 2003/203
{for multi-channelled structures, e.g. honeycomb structures}

Definition statement

This place covers:

References

Limiting references

This place does not cover:

- Extrusion dies for hollow (clay) bricks
  
  B28B 3/26
B28B 3/22
by screw or worm

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 3/222
{Screw or worm constructions}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

DE 101 22 537 A1
B28B 3/22
Offenlegungstag: 15. November 2001

Fig. 6

B28B 3/24
by reciprocating plunger

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

EP 2 340 921 A1

Fig. 1
**B28B 3/26**

Extrusion dies

**References**

**Limiting references**

*This place does not cover:*

- Extrusion dies for multi-channelled structures

**B28B 3/2618**

{using lubricating means}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
**B28B 3/2627**

(using means for making hollow objects with transverse walls, e.g. hollow objects closed on all sides)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B28B 3/2636
{using means for co-extruding different materials}

Definition statement
This place covers:
EP 1 415 779 A1

FIG. 19(a)

B28B 3/2645
{using means for inserting reinforcing members}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
EP 1 217 142 A2

Fig. 4b
**B28B 5/00**

Producing shaped articles from the material in moulds or on moulding surfaces, carried or formed by, in, or on conveyors irrespective of the manner of shaping (shaping aspects see the relevant groups)

**Definition statement**

*This place covers:*

The moulds or moulding surfaces are transported along several station of activity, for example, first a mould is transported to a cleaning station followed by a casting station and finally by a demoulding station.

**References**

**Limiting references**

*This place does not cover:*

- Machines or methods for applying the material to surfaces to form a permanent layer thereon, to webs, sheets or the like  
  B28B 19/0092

**B28B 5/02**

on conveyors of the endless-belt or chain type (in combination with pressing rollers B28B 3/12)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B28B 5/021
{the shaped articles being of definite length}

References

Limiting references

This place does not cover:
Illustrative example of subject matter classified in this group:

![Diagram](image1)

FIG.11

B28B 5/022
{the moulds or the moulding surfaces being individual independant units and being discontinuously fed (feeding B28B 13/0215 and sub-groups)}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

![Diagram](image2)
B28B 5/025
{the moulds or the moulding surfaces being divided by separating walls and being continuously fed (feeding B28B 13/02)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B28B 5/026
{the shaped articles being of indefinite length}

References
Limiting references
This place does not cover:
Illustrative example of subject matter classified in this group:
B28B 5/027
{the moulding surfaces being of the indefinite length type, e.g. belts, and being continuously fed (feeding B28B 13/02)}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:
B28B 5/028
{the moulding surfaces being of definite length, e.g. succession of moving pallets, and being continuously fed (feeding B28B 13/02)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

Fig. 1
B28B 5/04

in moulds moved in succession past one or more shaping stations (on turn-tables B28B 5/06)

References

Limiting references

This place does not cover:

Illustrative example of subject matter classified in this group:

B28B 5/06
in moulds on a turntable

References

**Limiting references**

This place does not cover:

Illustrative example of subject matter classified in this group:

---

B28B 5/08
intermittently rotated

References

**Limiting references**

This place does not cover:

Illustrative example of subject matter classified in this group:
B28B 5/10

in moulds carried on the circumference of a rotating drum

References

Limiting references

This place does not cover:

Illustrative example of subject matter classified in this group:

DE 100 59 449 A1 2004.03.11

Anhängende Zeichnungen
B28B 5/12
intermittently rotated

References

Limiting references
This place does not cover:

Illustrative example of subject matter classified in this group:

B28B 7/00
Moulds; Cores; Mandrels (specially adapted for the production of the tubular articles B28B 21/00; {for casting metals B22C 9/00; moulds for plastic materials in general B29C 33/00; falsework, forms or shutterings for forming buildings or parts thereof in situ E04G 9/00 - E04G 15/00})

Relationships with other classification places

The preceding image includes references to E04G, B28B/00, B29C/00, B22C/00.
References

Limiting references

This place does not cover:

Moulds or cores for casting metal

B22C 9/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Moulds for plastic materials in general

B29C 33/00

Falsework, forms or shuttering for forming buildings or parts thereof in situ

E04G 9/00 - E04G 15/00

B28B 7/0032

{Moulding tables or similar mainly horizontal moulding surfaces}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram of moulding tables or similar mainly horizontal moulding surfaces]
B28B 7/0038
{the sidewalls of mould and moulded article moving only past each other, e.g. box-shaped moulds which are lifted off from the moulding}

Definition statement

This place covers:
E.g. sliding movement of the mould walls past the cast article.
B28B 7/0041

{the sidewalls of the mould being moved only parallelly away from the sidewalls of the moulded article}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/0044
{the sidewalls of the mould being only tilted away from the sidewalls of the moulded article, e.g. moulds with hingedly mounted sidewalls}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

WO 2006/126784
PCT/KR2006/001415

Fig. 2
B28B 2007/005

{Fastening means for mould parts, e.g. for attaching mould walls on mould tables; Mould clamps}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 2007/0052
{for attaching mould walls on mould tables}

Definition statement

*This place covers:*

Illustrative example of subject matter classified in this group:
B28B 7/0055
{Mould pallets; Mould panels}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

U.S. Patent June 6, 1978 Sheet 3 of 3 4,093,174

FIG. 10
B28B 7/0058

{Moulds, cores or mandrels with provisions concerning the elimination of superfluous material; Moulds with burr-removing means provided therein or carried thereby}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/0061

{Moulds, cores or mandrels specially adapted for mechanically working moulding surfaces during moulding or demoulding, e.g. smoothing by means of mould walls driven during moulding or of parts acting during demoulding}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/007
{with moulding surfaces simulating natural effects, e.g. wood or stone}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/0073

{with moulding surfaces simulating assembled bricks or blocks with mortar joints (B28B 7/007 takes precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

| With moulding surfaces simulating natural effets | B28B 7/007 |
B28B 7/0076

{with surfaces for moulding letters or marks}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/0079
{with surfaces for moulding interlocking means, e.g. grooves and ribs}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B28B 7/0082
{with surfaces for moulding parallel grooves or ribs (B28B 7/0073, B28B 7/0079 takes precedence)}

References

Limiting references

This place does not cover:

| With moulding surfaces simulating assembled bricks or blocks with mortar joints | B28B 7/0073 |
| With surfaces for moulding interlocking means                              | B28B 7/0079 |
B28B 7/0085
{with surfaces for moulding chamfers}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/0088

{Moulds in which at least one surface of the moulded article serves as mould surface, e.g. moulding articles on or against a previously shaped article, between previously shaped articles}

Definition statement

This place covers:

Wherein the surface of the moulded article which serves as a mould surface either becomes part of the final product or the two or more cast articles are seperated from each other e.g. flat concrete panel which serves as a moulding surface for the next flat concrete panel to be cast.

FIG.7
B28B 7/0091

{Transformable moulds allowing the change of shape of an initial moulded preform by preform deformation or the change of its size by moulding on the preform}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/0097

{Press moulds; Press-mould and press-ram assemblies}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Fig. 1
B28B 7/02

Moulds with adjustable parts {specially for modifying at will the dimensions or form of the moulded article}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram of mould with adjustable parts](image)
B28B 7/04
one or more of the parts being pivotally mounted

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:
B28B 7/06
Moulds with flexible parts

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B28B 7/08
Moulds provided with means for tilting or inverting

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

DE 20 2008 0 15 274 U1  2007.01.26
B28B 7/082
{Tiltable moulding tables or similar moulding surfaces (specially for casting and erecting walls or parts thereof during construction work E04G 11/32)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Fig. 1](image1)

![Fig. 2](image2)
B28B 7/085
{for making double wall panels}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B28B 7/087
{using rocker or rolling means}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/10

Moulds with means incorporated therein, or carried thereby, for ejecting {or detaching} the moulded article ({{flexible moulds bent open for ejecting B28B 7/06; ejecting by tilting or inverting the mould B28B 7/08; } devices, not forming part of the mould, for ejecting the moulded article B28B 13/06})

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/12

by fluid pressure {, e.g. acting through flexible wall parts or linings of the moulds}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

--- FIG. 2 ---

--- FIG. 3 ---
**B28B 7/14**

Moulds with means incorporated therein, or carried thereby, for cutting the moulded article into parts ([for expanded material B28B 1/506; ] cutting means independent of the mould B28B 11/14)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)
B28B 7/16
Moulds for making shaped articles with cavities or holes open to the surface {, e.g. with blind holes}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B28B 7/162
{for building blocks or similar block-shaped articles}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B28B 7/164
{for plates, panels, or similar sheet- or disc-shaped articles}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
**B28B 7/166**

{for oblong articles, e.g. hollow masts}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**Fig. 5**

**B28B 7/168**

{for holders or similar hollow articles, e.g. vaults, sewer pits}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)
the holes passing completely through the article

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/183
{for building blocks or similar block-shaped objects}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Illustration of building blocks](image_url)
B28B 7/186
{for plates, panels or similar sheet- or disc-shaped objects, also flat oblong moulded articles with lateral openings, e.g. panels with openings for doors or windows, grated girders}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B28B 7/20
Moulds for making shaped articles with undercut recesses, e.g. dovetails

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

FIG. 4

FIG. 5

FIG. 6

FIG. 7
Moulds for making units for prefabricated buildings (i.e. units each comprising an important section of at least two limiting planes of a room or space, e.g. cells (for making rooms or entire buildings in situ E04G 11/02)); Moulds for making prefabricated stair units

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/225
{for making stairs or stair units comprising more than one step (in situ E04G 13/06)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B28B 7/24**

Unitary mould structures with a plurality of moulding spaces {, e.g. moulds divided into multiple moulding spaces by integratable partitions, mould part structures providing a number of moulding spaces in mutual co-operation (assemblies of individually complete moulds B28B 7/26)}

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/241

{Detachable assemblies of mould parts providing only in mutual co-operation a number of complete moulding spaces}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

FIG.1
B28B 7/243

{for making plates, panels or similar sheet- or disc-shaped objects}

Definition statement

*This place covers:*

Illustrative example of subject matter classified in this group:

Fig 1
B28B 7/245
{using transportable mould batteries}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/246
{for making oblong objects, e.g. girders}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/248

{using angle-shaped mould parts, e.g. L-parts}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B28B 7/26**

Assemblies of separate moulds, i.e. of moulds or moulding space units, each forming a complete mould or moulding space unit independently from each other

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B28B 7/28

Cores; Mandrels {(B28B 1/44 takes precedence; of special materials in general B28B 7/34; cores for making blind holes in situ E04G 15/04; for making recesses E04G 15/06)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

By forcing cores into filled moulds for forming hollow articles B28B 1/44
Embedding lost cores, see B28B 23/0068

Informative references

Attention is drawn to the following places, which may be of interest for search:

Of special materials in general B28B 7/34
B28B 7/30
adjustable, collapsible, or expanding \{(for making tubular objects \textbf{B28B 21/88})\}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Application-oriented references
Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

| Adjustable, collapsible or expansible cores for the production of tubular articles | \textbf{B28B 21/88} |
**B28B 7/303**

{specially for making undercut recesses or continuous cavities the inner section of which is superior to the section of either of the mouths}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

Fig 22

![Fig 22](image)

FIG 23

Fig 24

![Fig 24](image)

Fig 25

![Fig 25](image)
B28B 7/306
{pliable or extensible}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/32

inflatable {(connection of valves to inflatable elastic bodies B60C 29/00)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Application-oriented references
Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Using inflatable cores for the production of tubular articles

B28B 7/362
(specially for making moulded articles from concrete with exposed aggregate)

Definition statement
This place covers:
For example wax paper or a retarder directly applied to the surface moulding cavity.
**B28B 7/366**

*Replaceable lining plates for press mould*

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![FIG. 1](image)

**B28B 7/388**

*with liquid material, e.g. lubricating*

**References**

**Limiting references**

*This place does not cover:*

Specially for making moulded articles from concrete with exposed aggregate.  

**B28B 7/342**

**B28B 7/40**

characterised by means for modifying the properties of the moulding material

**Definition statement**

*This place covers:*

The properties of the moulding material are modified while the article is still in contact with the mould, core, mandrel.
**B28B 7/42**

for heating or cooling, e.g. steam jackets {, by means of treating agents acting directly on the moulding material}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

**References**

*Application-oriented references*

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

| Moulds with heating or cooling means for the production of tubular articles | B28B 21/78 |
**B28B 7/44**

for treating with gases or degassing, e.g. for de-aerating { treating with hot gases or vapour B28B 7/42 }

**References**

**Informative references**

Attention is drawn to the following places, which may be of interest for search:

| For chemical aspects of treating with gasses, for example treatment of concrete with CO2-gas. | C04B |

**B28B 7/46**

for humidifying or dehumidifying

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:
B28B 7/465

{Applying setting liquid to dry mixtures}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

- Rapid manufacturing and prototyping of 3D objects by using a combination of solid and liquid materials

B28B 11/00

Apparatus or processes for treating or working the shaped (or preshaped) articles (specially adapted for tubular articles B28B 21/92; decoration or surface treatment in general B05, B44; compacting concrete in situ in connection with building E04G 21/06; drying F26)

Definition statement

This place covers:

The shaped articles being treated or worked are still in a green state.
Relationships with other classification places

Apparatus or process for treating or working the shaped articles

- Applying decorations on the article
  - B44
- Articles in "green" state
  - B28B
- Cutting in general
  - B26D
- Drying objects by removing liquid therefrom
  - F26B
- Printing on the article
  - B41
- Articles in "white" state
  - B28D
- Furnaces; Kilns; Ovens
  - F27
- Applying liquids or other fluent materials to surfaces
  - B05C/D
- Grinding or polishing in general
  - B24
- Cleaning in general
  - B08B

The preceding image includes references to B44, B28B, B26D, F26B, B41, B28D, F27, B05C/D, B24, B08B.

References

Limiting references

This place does not cover:

Places excluded by precedence rules:

B28D working stone or stone like materials

Informative references

Attention is drawn to the following places, which may be of interest for search:

- Grinding; Polishing
  - B24
- Decoration or surface treatment in general
  - B44, B05
- Drying
  - F26
- Furnaces; Kilns; Ovens; Retorts
  - F27
B28B 11/003

{the shaping of preshaped articles, e.g. by bending (B28B 11/08 takes precedence)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References

Limiting references
This place does not cover:

For reshaping the surface  B28B 11/08

Application-oriented references
Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Methods or apparatus for reshaping tubular articles  B28B 21/98
B28B 11/006
{Making hollow articles or partly closed articles}

Definition statement

This place covers:
Plugging ceramic honeycomb filters.

(10) 特開2006-116483(P2006-116483A)

【図2】
and other techniques

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Honeycombs characterised by the plugs | B01D 46/2422 |
**B28B 11/02**

for attaching appendages, e.g. handles, spouts

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![FIG. 6 (a)](image)

![FIG. 6 (b)](image)

**B28B 11/04**

for coating (or applying engobing layers) (glazing, engobing C04B)

**Relationships with other classification places**

In case the coating has a decorative purpose classify also in: **B28B 11/001**
B28B 11/042
{with insulating material}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 11/06

with powdered or granular material {}, e.g. sanding of shaped articles

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B28B 11/08

for reshaping the surface, e.g. smoothing, roughening, corrugating, making screw-threads

Definition statement

This place covers:

Working the surface of a formed green article or intermediate product which can still be (partly) in the mould or which has been demoulded,

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Methods or apparatus for smoothing, roughening, corrugating of tubular articles

Informative references

Attention is drawn to the following places, which may be of interest for search:

General field for grinding and polishing
B28B 11/0863

{for profiling, e.g. making grooves}

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

| Profiling of plates such as asbestos cement sheets | B28B 11/0827 |

B28B 11/12

for removing parts of the articles by cutting

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

EP 2 230 566 A2

References

Limiting references

This place does not cover:

By removing material from solid section preforms for forming hollow articles, e.g. by punching or boring | B28B 1/48 |
Informative references

Attention is drawn to the following places, which may be of interest for search:

Cutting; details common to machines for severing

B28B 11/125

{Cutting-off protruding ridges, also profiled cutting}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

WO 2005/011937
PCT/AU2004/000945

Figure 7
B28B 11/14
for dividing shaped articles by cutting

Definition statement

This place covers:
Dividing a pre-form by a cutting action in two or more products.

DE 10 2006 022 267 A1  2007.11.15

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Separating article from each other per se | B28B 17/0018 |
B28B 11/145
{for dividing block-shaped bodies of expanded materials, e.g. cellular concrete}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 11/16
for extrusion {or for materials supplied in long webs}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B28B 11/18
for removing burr {combined with the mould B28B 7/0058}

References
Application-oriented references
Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Methods or apparatus for removing burr from tubular articles  B28B 21/96

B28B 11/22
for cleaning

References
Limiting references
This place does not cover:

Cleaning of moulds, cores or mandrels  B28B 7/386
Informative references
Attention is drawn to the following places, which may be of interest for search:

| Cleaning in general | B08B |

B28B 11/24
for curing, setting or hardening (processes for influencing or modifying the setting or hardening ability of mortars, concrete or artificial stone compositions, in general C04B 40/00)

References
Limiting references
This place does not cover:

| Mould, cores and mandrels characterised by means for modifying the properties of the moulding material | B28B 7/40 |

Informative references
Attention is drawn to the following places, which may be of interest for search:

| Pressure vessels, e.g. autoclaves | B01J 3/04 |
| Processes for influencing or modifying the setting or hardening ability of mortars, concrete or artificial stone compositions, in general | C04B 40/00 |
| Drying objects by removing liquid therefrom | F26B |
| Furnaces; Kilns; Ovens, Retorts | F27 |

B28B 11/243
{Setting, e.g. drying, dehydrating or firing ceramic articles (B28B 11/242 takes precedence)}

References
Limiting references
This place does not cover:

| By passing an electric current through wires, rods or reinforcing members incorporated in the article | B28B 11/242 |

Informative references
Attention is drawn to the following places, which may be of interest for search:

| Processing powders of inorganic compounds preparatory to the manufacturing of ceramic products | C04B 35/00 |
B28B 13/00
Feeding the unshaped material to moulds or apparatus for producing shaped articles; Discharging shaped articles from such moulds or apparatus (feeding or discharging devices incorporated in, or operatively associated with, a particular type of shaping apparatus, or specially designed to supply materials to a particular type of shaping apparatus, see the relevant groups for the apparatus)

References
Informative references
Attention is drawn to the following places, which may be of interest for search:

| Filling moulds with powder | B22F 3/004 |
| Feeding material to presses | B30B 15/30 |

B28B 13/02
Feeding the unshaped material to moulds or apparatus for producing shaped articles

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

WO 2005/051576
PCT/FR2004/050618

FIG. 1
B28B 13/0205

{supplied to the moulding device in form of a coherent mass of material, e.g. a lump or an already partially preshaped tablet, pastil or the like}

Definition statement

This place covers:

The coherent mass of material has been pre-shaped, -formed, -compacted in a separate apparatus
B28B 13/021
{by fluid pressure acting directly on the material, e.g. using vacuum, air pressure}

References

Limiting references

This place does not cover:

Illustrative example of subject matter not classified in this group:

U.S. Patent May 13, 1986 Sheet 2 of 3 4,588,368
B28B 13/022

{Feeding several successive layers, optionally of different materials}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

| Producing layered article by simple casting | B28B 1/16 |
B28B 13/023
{by using a feed box transferring the moulding material from a hopper to the moulding cavities}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

| By using feed frames or shoes with relative movement | B30B 15/304 |
**B28B 13/04**

Discharging the shaped articles {{discharging tubular articles after shaping \textbf{B28B 21/90}; } conveying systems for ceramic mouldings \textbf{B65G 49/08}}

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram](image)

**FIG. 1**

**References**

*Application-oriented references*

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

| Methods or apparatus for discharging after shaping tubular articles | \textbf{B28B 21/90} |
B28B 13/06

Removing the shaped articles from moulds (by means incorporated in, or carried by, the moulds B28B 7/10)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 15/00

General arrangement or layout of plant {Industrial outlines, plant installations}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B28B 15/002

{Mobile plants, e.g. on vehicles or on boats}

Definition statement

This place covers:

e.g. mobile plants that can be broken-down for transport.
B28B 15/005

{Machines using pallets co-operating with a bottomless mould; Feeding or discharging means for pallets (feeding pallets for making a continuous moulding surface B28B 5/025, B28B 5/028)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 15/007
{Plant with two or more identical shaping or moulding devices}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B28B 17/0018

{Separating articles from each other}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B28B 17/0027**

*Accessories for obtaining rubblestones*

**Definition statement**

*This place covers:*

E.g. block splitting assembly

**References**

*Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| Cutting by pressing stone or stone-like materials | B28D 1/222 |

**B28B 17/0036**

*Cutting means, e.g. water jets*

**Definition statement**

*This place covers:*

This subgroup is complementary to B28B 11/12, B28B 11/14 and subgroups.

**References**

*Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| Cutting in general | B26D |
B28B 17/0045
{Tensioning devices for cutting means}

References

Limiting references
This place does not cover:

| Tensioning means for cutters in general | B26D 1/48 |

B28B 17/0054
{Cleaning devices for cutting means}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

![Figure 5]

B28B 17/0063
{Control arrangements}

Definition statement

This place covers:
Control arrangements for both product inspection and operating conditions.

References

Informative references
Attention is drawn to the following places, which may be of interest for search:

| Measuring; Testing | G01 |
Controlling; Regulating

B28B 17/009

{Changing the forming elements, e.g. exchanging moulds, dies}

Definition statement

*This place covers:*

Illustrative example of subject matter classified in this group:

![Illustrative example](image)

**Fig. 1**

References

*Informative references*

Attention is drawn to the following places, which may be of interest for search:

- Mounting of dies, platens or press rams

**B30B 15/026**

B28B 17/02

Conditioning the material prior to shaping {for mixtures containing clay or cement [B28C]}*

References

*Limiting references*

This place does not cover:

- Mixing per se

**B01F, B28C**
B28B 19/00

Machines or methods for applying the material to surfaces to form a permanent layer thereon (making shaped articles on mandrels B28B 1/30; applying liquids or other fluent materials to surfaces in general B05C; glazing or engobing C04B; applying the material to walls or other fixed structures, see the relevant classes of section E)

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Layered products essentially comprising a water-setting substance B32B 13/00

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

<table>
<thead>
<tr>
<th>The material</th>
<th>(a) clay or other ceramic compositions; (b) slag; (c) mixtures with water-setting properties given by clay, cementitious material, or slag.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surfaces</td>
<td>any kind of surface not restricted to any type of material</td>
</tr>
</tbody>
</table>

B28B 19/0007

{for producing articles with exposed aggregate}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Illustrative example diagram](image-url)
B28B 19/0023

{Lining the inner wall of hollow objects, e.g. pipes}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

Incorporating steel tubes in the production of tubular articles  B28B 21/58

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Devices or appurtenances for use in, or in connection with, pipes or pipe systems | F16L 55/00 |
| Protection of pipes or pipe fittings against corrosion or incrustation | F16L 58/00 |
B28B 19/0038
{lining the outer wall of hollow objects, e.g. pipes}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References

Limiting references
This place does not cover:

Incorporating steel tubes in the production of tubular articles B28B 21/58

Informative references
Attention is drawn to the following places, which may be of interest for search:

Devices or appurtenances for use in, or in connection with, pipes or pipe systems F16L 55/00
Protection of pipes or pipe fittings against corrosion or incrustation F16L 58/00
B28B 19/0053
{to tiles, bricks or the like}

Definition statement

This place covers:
Application to cladding elements.

Illustrative example of subject matter classified in this group:

Relationships with other classification places

See also E04C 2/041.

References

Limiting references

This place does not cover:

Apparatus for handling the smaller elements or the hardenable material;  
bricklaying machines for prefabricated panels  E04C 2/042

Informative references

Attention is drawn to the following places, which may be of interest for search:

Bricklaying machines in general  E04G 21/22
B28B 19/0092
{to webs, sheets or the like, e.g. of paper, cardboard}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Relationships with other classification places

In case the webs, sheets or the like are also reinforcing members, also classify in:

- B28B 23/0006 The reinforcement consisting of aligned, non-metal reinforcing elements.
- B28B 23/02 In case of reinforcements made of metal.

Final products per se: E04C 2/043 Building elements of plaster.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Methods or apparatus for laminating

B32B 37/00
**B28B 21/00**

Methods or machines specially adapted for the production of tubular articles

**References**

*Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| Pipes Joints or fittings for pipes | F16L |

**B28B 21/06**

into moulds having sliding parts (*B28B 21/26* takes precedence; forms, shutterings, or falsework for making rooms as a whole, whole stories, or whole buildings in situ *E04G 11/02*)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**References**

*Limiting references*

*This place does not cover:*

| With a packer head serving as a sliding mould or provided with guiding means for feeding the material | B28B 21/26 |
B28B 21/08
by slip-casting; Moulds therefor

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Fig. 1
B28B 21/10
using compacting means

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B28B 21/16
one or more mould elements

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B28B 21/20**

using inflatable cores, e.g. having a frame inside the inflatable part of the core (connection of valves to inflatable elastic bodies **B60C 29/00**)

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:
B28B 21/22

using rotatable mould or core parts

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B28B 21/24**

using compacting heads, rollers, or the like

**Definition statement**

*This place covers:*

Compacting heads, rollers, or the like when driven and suspended from above


**Special rules of classification**

Compacting heads, rollers, or the like driven from beneath or followed by a sliding mould with particular inventive emphasis classify in:

**B28B 21/26** With a packer head serving as a sliding mould or provided with guiding means for feeding the material.
B28B 21/245
{using a horizontal compacting roller in a horizontally rotatable mould}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Limiting references
This place does not cover:

| Centrifugal moulding for the production of tubular articles | B28B 21/30 |
B28B 21/26
with a packer head serving as a sliding mould or provided with guiding means for feeding the material

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B28B 21/30
Centrifugal moulding

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

| Incorporating reinforcements and applying centrifugal forces | B28B 21/68 |
B28B 21/305

{Moulding machines with vertical rotation axis}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

---

B28B 21/44

by projecting, e.g. spraying

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B28B 21/48
by wrapping, e.g. winding

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

FIG. 2
B28B 21/52

by extruding

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:


B28B 21/56

incorporating reinforcements {or inserts}

Definition statement

This place covers:

Incorporating inserts and/or reinforcing members.
B28B 21/563

{Gaskets}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

With elastic sealing rings between pipe and socket, placed on the socket before connection.
**B28B 21/566**

*Climbing elements*

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

---

**References**

*Informative references*

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Climbing irons or the like</th>
<th>E06C 9/04</th>
</tr>
</thead>
</table>

**B28B 21/64**

*Winding arrangements*

**References**

*Informative references*

Attention is drawn to the following places, which may be of interest for search:

| Methods, apparatus, or devices for covering or wrapping cores by winding webs, tapes, or filamentary material | B65H 81/00 |
B28B 21/70
by building-up from preformed elements

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B28B 21/72
Producing multilayer tubes

Definition statement
This place covers:
The preformed elements for producing multilayer tubes can be manufactured of any material.
B28B 21/78

with heating or cooling means, e.g. steam jackets

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B28B 21/80**

adapted to centrifugal or rotational moulding

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

**References**

*Limiting references*

This place does not cover:

| Centrifugal moulding using compacting heads, rollers, or the like | B28B 21/30 |
B28B 21/86
Cores (in general B28B 7/00)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Cores in general</th>
<th>B28B 7/00</th>
</tr>
</thead>
</table>
B28B 21/925
{for wrapping}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B28B 21/94
for impregnating or coating by applying liquids or semi-liquids

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
**B28B 21/965**

{for grooving or corrugating}

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

**Fig. 3**

---

**B28B 23/00**

Arrangements specially adapted for the production of shaped articles with elements wholly or partly embedded in the moulding material; {Production of reinforced objects} (B28B 21/00 takes precedence; in units for prefabricated buildings B28B 7/22)

**Definition statement**

This place covers:

Wherein the element which is wholly or partly embedded in the moulding material can be a reinforcing member, insert, moulding material component, gaskets, or the like; not being restricted by the choice of material.

**References**

**Limiting references**

This place does not cover:

| Methods or machines specially adapted for the production of tubular articles | B28B 21/00 |
Informative references

Attention is drawn to the following places, which may be of interest for search:

| Reinforcing elements in general | E04C 5/00 |

Special rules of classification

Machines or methods for applying the material to surfaces to form a permanent layer thereon should be classified in B28B 19/00.

B28B 23/0012

{Producing brick netting}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![FIG.1](image1)

![FIG.2](image2)

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Pavings made of prefabricated single units | E01C 5/00 |
B28B 23/0043

{with gaskets or sealing elements, e.g. for tunnelings or man holes (B28B 21/563 takes precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

| Gaskets       | B28B 21/563 |
B28B 23/005
{with anchoring or fastening elements for the shaped articles}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

Relationships with other classification places
Anchoring or fastening elements in combination with means for supporting them in the mould, also classify in B28B 23/0056.

References
Informative references
Attention is drawn to the following places, which may be of interest for search:

| Connecting devices specially adapted for embedding in concrete | E04B 1/41 |
| Means in or on the elements for connecting same to handling apparatus | E04G 21/142 |
B28B 23/0056

{Means for inserting the elements into the mould or supporting them in the mould (B28B 23/022 takes precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

Means for inserting reinforcing members into the mould or for supporting them in the mould  

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cores for anchor holes or the like  

---
B28B 23/0068
{Embedding lost cores}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Informative references
Attention is drawn to the following places, which may be of interest for search:

Non-reusable forms

| E04G 15/061 |
B28B 23/0075

{for decorative purposes}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

Coating with powdered or granular material
Applying the material to tiles, bricks, or the like to form a permanent layer thereon

B28B 23/0081

{Embedding aggregates to obtain particular properties}

Definition statement

This place covers:
Wherein the aggregates themselves contain particular properties.

References

Limiting references

This place does not cover:

Embedding aggregates which cause a chemical reaction to obtain particular properties
B28B 23/02

wherein the elements are reinforcing members {(B28B 23/0006 takes precedence)}

References

Limiting references

This place does not cover:

| Specially adapted for producing articles from mixtures containing fibres | B28B 1/52 |
| The reinforcement consisting of aligned, non-metal reinforcing elements | B28B 23/0006 |

B28B 23/022

{Means for inserting reinforcing members into the mould or for supporting them in the mould (inserting during extrusion B28B 3/2645)}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

| Mounting of reinforcing inserts | E04G 21/12 |

B28B 23/026

{Mould partitionning elements acting as supporting means in moulds, e.g. for elongated articles}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B28B 7/085</td>
<td>Moulds provided with means for tilting or inverting for making double wall panels</td>
</tr>
</tbody>
</table>

**B28B 23/04**

the elements being stressed

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B28B 21/60</td>
<td>Prestressed reinforcements in the production of tubular articles</td>
</tr>
</tbody>
</table>

Informative references

Attention is drawn to the following places, which may be of interest for search:

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E04G 21/12</td>
<td>Mounting of reinforcing inserts; Prestressing</td>
</tr>
</tbody>
</table>
B28B 23/043

{Wire anchoring or tensioning means for the reinforcements}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B28B 23/046

{Post treatment to obtain pre-stressed articles}

Definition statement

This place covers:

e.g. reinforcing members are stressed after the hardening of the element; Reinforcing members are introduced through (a) continuous opening(s) of the hardened element, are stressed and connected to the hardened element.

B28B 23/18

for the production of elongated articles (B28B 23/06 takes precedence)

References

Limiting references

This place does not cover:

| The elements being stressed | B28B 23/06 |