Industeeel

Mold steels for corrosive applications
Industeel High quality steels

Industeel mills combine a careful selection of raw materials, high performant electric arc furnace with fine tuned secondary metallurgy, vacuum and special degassing processes to provide our customers high cleanliness stainless steels.

Our 3 complementary integrated mills and our wide know-how about stainless steels brought us up to the leading producers of corrosion-resistant mold steels worldwide, allowing us to select the optimal solution to meet your requirements.

<table>
<thead>
<tr>
<th>Application</th>
<th>Grade</th>
<th>Werkstoff number</th>
<th>Thickness (mm)</th>
<th>Delivery conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inserts cavities and extrusion dies</td>
<td>2083</td>
<td>1.2083</td>
<td>15-130</td>
<td>Quenched and tempered 280-310 HB</td>
</tr>
<tr>
<td></td>
<td>2316</td>
<td>1.2316</td>
<td>15-225</td>
<td>Quenched and tempered 280-325 HB</td>
</tr>
<tr>
<td></td>
<td>17-4PH</td>
<td></td>
<td>200-600</td>
<td>Quenched and tempered 290-350 HB</td>
</tr>
<tr>
<td>Mold bases and mechanical parts</td>
<td>2085</td>
<td>1.2085</td>
<td>15-350</td>
<td>Quenched and tempered 280-325 HB</td>
</tr>
<tr>
<td></td>
<td>Superplast Stainless</td>
<td>1.2099</td>
<td>15-350</td>
<td>Quenched and tempered 280-330 HB</td>
</tr>
</tbody>
</table>

Examples of applications

Plastic bottles

PET packaging

Molding PET requires narrow temperature ranges and high speeds to achieve the transparency and the quality needed for bottles and all kind of food-contact packaging.

The mold is in permanent contact with high risk of water condensation. Its resistance to corrosion ensures its lifetime.

2085 and SP Stainless are perfect candidates to manufacture all the holders for this kind of molds.

Molds for medical applications

Medical applications require extreme high cleanliness on all the molding process to fit with most stringent regulations. Corrosion is absolutely not acceptable on any part of the mold.

In this context, 2085 and SP Stainless are the best grades to manufacture all the parts of the mold that are not in direct contact with the plastic.

PVC extrusion dies

During the molding of PVC, some acids are released. These acids are very corrosive and will destroy the mold quickly if this one is not resistant enough to corrosion.

Our 2316 steel is the perfect answer for this kind of plastic parts needing medium polishing. It is available up to 225 mm heavy plate, and even if you need thicker we can provide you alternative grades such as 17-4PH up to 600 mm.
Superplast Stainless

Superplast Stainless chemistry has been defined to provide:
- Homogeneous and reliable metallurgical structure thanks to the low C and addition of B (Superplast® concept)
- Higher machining performances for the moldmaker thanks to the balance between Carbon and Sulfur content

Superplast® Stainless provides benefits at each stage of the manufacturing chain:

**Requirements** | **Superplast® Stainless**
---|---
Short manufacturing time | High machinability
Low tooling cost | Hardness and structure through homogeneity
Reliable and homogeneous quality | Easy repair welding
Easy design modifications | Straightforward & reliable manufacturing
Reliable mold cost and delivery | Higher thermal conductivity
Shortened injection cycle time | 

**Moldmaker**

**Molder**

**Stock offer**

Do you need short delivery time or additional service? Our stock offer has been built for you!
- Reduced delivery time of 2 weeks ex-mill after order placement.
- 4-sawn edges plates.
- Thickness from 15mm to 110 mm, standard 2 meters x 4 meters Flatness tolerance 3mm/2m.
- Cut to size products if needed.
With 40 sales offices in 40 different countries around the world, Industeel stands as one of the foremost international steel makers, with an unmatched capacity of support everywhere around the world.

For any information

Industeel France
Châteauneuf plant
118 route des Etaings
F - 42803 RIVE-DE-GIER Cedex
FRANCE

Industeel France
Le Creusot plant
56, rue Clemenceau – BP 19
F - 71201 LE CREUSOT Cedex
FRANCE

Industeel Belgium
Charleroi plant
266 rue de Châtelet
B - 6030 CHARLEROI
BELGIUM

https://industeel.arcelormittal.com