

HARDENABLE CORROSION RESISTANT STEELS

Available Product Shapes

- Long Products
- Plates

Product Description

Corrosion resistant plastic mould steel with the best polishability for products which require an outstanding surface finish.

Properties

- Very high toughness & ductility
- Good wear resistance
- Very good machinability
- Very good dimensional stability
- Mirror finish polishability
- Very high corrosion resistance
- Very high micro-cleanliness

Applications

- > Comps. for Food processing and Animal Feed
- > Plastic Extrusion
- > Consumer Goods - General
- > Medical
- > Components for Displays
- > Hotrunner systems
- > Food processing Industry
- > Standard Parts (Molds, Plates, Pins, Punches)
- > General Components for Mechanical Engineering
- > Packaging
- > Electronic Industry
- > Injection Molding
- > Blow Molding
- > Lamps/Lenses for Automotive
- > Camera lenses
- > Screws and Barrels

Chemical composition (wt. %)

C	Si	Mn	Cr	Mo	Ni	V	N
0.24	0.2	0.35	13.25	+	+	+	+

Material characteristics

	Corrosion resistance	Machinability in as supplied condition	Polishability	Toughness	Wear resistance
BÖHLER M333 ISOPLAST®	★★★★★	★★★★★	★★★★★	★★★★★	★★
BÖHLER M310 ISOPLAST®	★★★★	★★★★★	★★	★★	★★
BÖHLER M340 ISOPLAST®	★★★	★★★	★★	★★	★★★
BÖHLER M368 MICROCLEAN®	★★★★★	★★★	★★★★★	★★★	★★★
BÖHLER M390 MICROCLEAN®	★★	★	★★★★	★★	★★★★★
BÖHLER M398 MICROCLEAN®	★★	★	★★★★	★★	★★★★★

Delivery condition

Soft annealed

Hardness	max. 220 HB
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Heat treatment

Hardening and Tempering

Temperature (°C °F)	980 1796	After through-heating, hold for 25 to 30 minutes. Quench quickly. Max. goal hardness: 48 to 50 HRC
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Physical Properties

Temperature (°C °F)	20 68
Density (kg/dm ³ lb/in ³)	7.71 0.28
Thermal conductivity (W/(m.K) BTU (IT) ft/hr/ft ² /F)	23.1 13.35
Specific heat (J/(kg.K) BTU (IT) lb/F)	460 109.87
Spec. electrical resistance (Ohm.mm ² /m 10 ⁻⁴ Ohm.inch ² /ft)	-
Modulus of elasticity (10 ³ N/mm ² 10 ³ ksi)	216 31.33

Thermal Expansions

Temperature (°C °F)	100 212	200 392	300 572	400 752	500 932
Thermal expansion (10 ⁻⁶ m/(m.K) 10 ⁻⁶ inch/(inch.F))	10.5 5.833	11 6.111	11 6.111	11.5 6.389	12 6.667

For more information see www.voestalpine.com/boehler-edelstahl

The data contained in this brochure is merely for general information and therefore shall not be binding on the company. We may be bound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate from practical analyses. The manufacture of our products does not involve the use of substances detrimental to health or to the ozone layer.

MATERIALS | MOLD BASES | PVD COATINGS | ADDITIVE



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