

PLASTIC MOULD STEELS

PREHARDENED CORROSION RESISTANT STEEL

Application Segments

Mucegai din plastic

Available Product Variants

Long Products*

Plates

* Datele prezentate se referă exclusiv la produsele lungi. Vă rugăm să respectați explicațiile detaliate de la sfârșitul fișei tehnice (pdf).

Product Description

BÖHLER M300 is a prehardened corrosion-resistant martensitic chromium steel that can be tempered to a higher strength due to its carbon content. Due to the alloying with chromium and molybdenum, BÖHLER M300 has very good corrosion resistance and good wear resistance and is therefore suitable for molds for processing chemically aggressive molding compounds (e.g. PVC).

Process Melting

Aer topit

Properties

- > Rezistență și ductilitate : high
- > Rezistență la uzură : high
- > Machinability : very high
- > Stabilitatea dimensională : good
- > Poluabilitate : good
- > Rezistență la coroziune : very high
- > No heat treatment necessary
- > Prehardened

Applications

- > Vytlačanie plastov
- > Turnare prin injecție
- > Șuruburi și butoaie
- > Industria electronică
- > Industria ambalajelor
- > Inginerie mecanică
- > Sisteme Hotrunner
- > Turnare prin suflare

Technical data

Material designation	
1.2316	SEL
X36CrMo17 ~X38CrMo16	EN

Chemical composition (wt. %)

C	Si	Mn	Cr	Mo	Ni
0.38	0.4	0.65	16	1	0.8

Delivery condition

Durificat și temperat	
Hardness (HB)	280 to 330

Heat treatment

Eliminarea stresului		
Temperature	max. 570 °C	Prehardened material: When stress-relieving the material after processing, keep the material at temperature in a neutral atmosphere for at least 2 hours after complete heating, then slowly cool the oven at 20°C [68 °F]/hour to 200°C [392 °F], then cool in air.
Temperature		Newly hardened and tempered material: Carry out the stress relief heat treatment at approx. 50°C [122 °F] below the tempering temperature. After complete heating, hold at temperature for 1 to 2 hours in a neutral atmosphere, then slowly cool down the furnace.

Physical Properties

Temperature (°C)	20
Density (kg/dm ³)	7.71
Thermal conductivity (W/(m.K))	20.3
Specific heat (kJ/kg K)	0.442
Spec. electrical resistance (Ohm.mm ² /m)	0.8
Modulus of elasticity (10 ³ N/mm ²)	219

Thermal Expansions between 20°C | 68°F and ...

Temperature (°C)	100	200	300	400	500
Thermal expansion (10 ⁻⁶ m/(m.K))	10.4	10.8	11.1	11.5	11.8

If other available product variants are listed in addition to long products, please note that these may differ in terms of melting process, technical data, delivery and surface condition as well as available product dimensions. For mandatory technical specifications, other requirements and dimensions, please contact our regional voestalpine BÖHLER sales companies. 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.

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