

# PLASTIC MOULD STEELS

## HARDENABLE CORROSION RESISTANT STEEL

### Mevcut Ürün Şekilleri

Uzun Ürünler\*

Levhalar

\* ) Presented data refer exclusively to long products. Please observe the detailed explanations at the end of the data sheet (pdf).

### Ürün Tanımı

Advanced martensitic stainless chromium steel for plastic molds. By electroslag remelting and optimization of the chemical composition, BÖHLER M310 ISOPLAST offers many advantages.

### Erime rotası

Airmelted + Remelted

### Özellikler

- > Tokluk ve Süneklik : iyi
- > Aşınma Direnci : iyi
- > İşlenebilirlik : çok yüksek
- > Boyutsal kararlılık : çok yüksek
- > Cilalanabilirlik : iyi
- > Korozyon direnci : yüksek
- > Mikro temizlik : yüksek

### Uygulamalar

- > Gıda İşleme ve Hayvan Yemi Endüstrileri için Parçalar
- > Plastic Extrusion
- > Tüketici Malları - Genel
- > Medical
- > Components for Displays
- > Hotrunner systems
- > Gıda İşleme Endüstrisi
- > Standard Parts (Molds, Plates, Pins, Punches)
- > Makine Mühendisliği için Genel Parçalar
- > Packaging
- > Elektronik Endüstrisi
- > Glasfibre reinforced plastics
- > Enjeksiyon kalıplama
- > Blow Molding
- > Otomobil Endüstrisi için Lambalar/Mercekler
- > Camera lenses
- > Screws and Barrels

### Teknik veriler

Malzeme Tanımı		Standartlar	
~1.2083	SEL	4957	EN ISO
~SUS420J2	JIS	A681	ASTM
X40Cr13	EN	AFNOR Z40C14	Others
X40Cr14			
~420	AISI		

## Kimyasal Bileşim

C	Si	Mn	Cr	V
0,38	0,7	0,45	14,3	0,2

## Teslimat durumu

Soft annealed	
Sertlik (HB)	maks. 225

## Isıl İşlem

Sertleştirme ve Temperleme		
Sıcaklık	1.025 kadar 1.050 °C	For hardening hold at temperature for 15 to 30 min. An optional sub-zero treatment at -80°C/-112°F can be applied after hardening. For highest corrosion resistance, temper once for a minimum of 2h at 250-350°C/482-662°F. For balanced toughness and hardness, temper twice for a minimum of 2h at 490-520°C/914-968°F (without sub-zero treatment) or 480-510°C/896-950°F (with sub-zero treatment). After each heat treatment step, material should be cooled down to approx. 30°C!

Stress relieving		
Sıcaklık		50°C / 90°F below last tempering temperature.

## Fiziksel özellikler

Sıcaklık (°C)	20
Yoğunluk (kg/dm <sup>3</sup> )	7,68
Termal iletkenlik (W/(m.K))	19,5
Özgül ısı kapasitesi (kJ/kg K)	0,46
Spes. elektrik direnci (Ohm.mm <sup>2</sup> /m)	0,65
Elastikiyet modülü (10 <sup>3</sup> N/mm <sup>2</sup> )	217

## Termal genleşmeler

Sıcaklık (°C)	100	200	300	400	500
Termal genleşme (10 <sup>-6</sup> m/(m.K))	10,63	10,94	11,29	11,66	12

**Long Products:** For additional specifications and technical requirements, please contact our regional voestalpine BÖHLER sales companies.

**Sheet & Plates:** Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact voestalpine BÖHLER Bleche GmbH & Co KG.

*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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ONE STEP AHEAD.