



# 钢铁之家

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# 全球钢号百科!

## Global Steel Grade Encyclopedia



涵盖的行业或国家与地区类别



美国材料与试验协会

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国家军用标准



动力机械工程师协会

EU

前欧洲标准化

AISI

美国钢铁学会



德国工业标准

AMS

航空航天材料规范



国际标准

JASO

日本汽车标准组织

EN

欧洲标准

JB

中国机械行业标准

UNS

统一编号系统

UNI

意大利标准



美国机械工程师协会

SS

瑞典标准



国家标准



日本工业标准

# PLASTIC MOULD STEELS PRE-HEAT TREATED CORROSION RESISTANT STEEL

## Available Product Shapes

Plates

## Product Description

Stainless martensitic chromium steel. Moulds for chemically aggressive plastics (e. g. PVC) and plastics containing abrasive fillers.

## Properties

- High toughness & ductility
- Good wear resistance
- Very good machinability
- Good dimensional stability
- Good polishability
- Very high corrosion resistance
- No heat treatment necessary
- Pre-paid

### Material designation

1.2316	SEL
X36CrMo17 ~X38CrMo16	EN

## Chemical composition

C	Si	Mn	Cr	Mo	Ni
0.38	0.40	0.65	16.00	1.00	0.80

## Material characteristics

	Corrosion resistance	Machinability in as supplied condition	Polishability	Toughness	Wear resistance
<b>BÖHLER M300</b>	★★★★	★★★	★★	★★★	★★★
<b>BÖHLER M303</b>	★★★★	★★★	★★★★★	★★★★★	★★★
<b>BÖHLER M303 HIGH HARD</b>	★★★	★★	★★★★★	★★★	★★★★★
<b>BÖHLER M314</b>	★★	★★★★★	★	★★	★★
<b>BÖHLER M315</b>	★★	★★★★★	★	★★	★★

PLASTIC MOULD STEELS PRE-HEAT  
TREATED CORROSION RESISTANT  
STEEL

M300

## Physical Properties

Temperature (°C / °F)	20 / 68	100 / 212	200 / 392	300 / 572	400 / 752	500 / 932
Density (kg/dm <sup>3</sup> / lb/in <sup>3</sup> )	7.71 / 0.28	7.71 / 0.28	7.71 / 0.28	7.71 / 0.28	7.71 / 0.28	7.71 / 0.28
Thermal conductivity (W/(m.K) / BTU (IT) ft/hr/ft <sup>2</sup> /F)	20.3 / 11.73	21.9 / 12.65	20 / 11.56	20.7 / 11.96	24.4 / 14.1	25.1 / 14.5
Specific heat (J/(kg.K) / BTU (IT) lb/F)	442 / 105.57	442 / 105.57	442 / 105.57	442 / 105.57	442 / 105.57	442 / 105.57
Spec. electrical resistance (Ohm.mm <sup>2</sup> /m / Ohm.inch <sup>2</sup> /ft)	0.8 / <0.001	0.8 / <0.001	0.8 / <0.001	0.8 / <0.001	0.8 / <0.001	0.8 / <0.001
Modulus of elasticity (10 <sup>3</sup> N/mm <sup>2</sup> / 10 <sup>3</sup> ksi)	219 / 31.76	219 / 31.76	215 / 31.18	213 / 30.89	210 / 30.46	210 / 30.46

## Thermal Expansions

Temperature (°C / °F)	100 / 212	200 / 392	300 / 572	400 / 752	500 / 932
Thermal expansion (10 <sup>-6</sup> m/(m.K) / 10 <sup>-6</sup> inch/(inch.F))	10.38 / 5.767	10.78 / 5.989	11.11 / 6.172	10.45 / 5.806	11.77 / 6.539

For more information see [www.voestalpine.com/boehler-edelstahl](http://www.voestalpine.com/boehler-edelstahl)



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ONE STEP AHEAD.

M300 EN - 12.2021

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