

BEARING STEELS

Available Product Shapes

Long Products	Round Bar	Semi-Finished Products / Billet
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Product Description

This specification covers a premium aircraft-quality, double vacuum-melted low-alloy steel in the form of bars, forgings and forging stock.

It is used typically for parts such as bearings operating under heavy loads and high speeds at moderate temperatures up to 600° F. E.g. bearings and rolling elements, bearing balls and races.

Process Melting

VIM + VAR

Applications

- > Bearings
- > Turbine and Engine Parts (Aerosp)
- > Other Aerospace Comps.

Technical data

Material designation		Standards	
1.3551	SEL	6491	AMS
M50	Market grade		

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	V	W	Cu	Co
0.80 to 0.85	max. 0.25	0.15 to 0.35	max. 0.015	max. 0.008	4.00 to 4.25	4.00 to 4.50	max. 0.15	0.90 to 1.10	max. 0.25	max. 0.10	max. 0.25

Related to AMS 6491

Delivery condition

Annealed	
Hardness	max. 248 HB Cold finished and annealed, above 12.7 mm diameter
Annealed	
Hardness	max. 229 HB Hot finished and annealed, above 12.7 mm diameter
Tensile Strength	max. 825 119.652 N/mm ² KSI Cold finished and annealed, max 12.7 mm diameter

Available Dimensions

Round Bars

Diameter		MOQ ex mill		Length				Tolerance						
									mm	inch	kg	lbs	m	ft
ROLLED														
12.30	-	55.00	0.484	-	2.165	1,250	2,756	3.00	-	4.00	9.84	-	13.12	IT h/k 11
55.01	-	120.00	2.166	-	4.724	1,400	3,086	3.00	-	4.00	9.84	-	13.12	IT h/k 11
120.01	-	140.00	4.725	-	5.512	1,400	3,086	3.00	-	5.00	9.84	-	16.40	IT h/k 14

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

For additional specifications and other sizes please contact BÖHLER Edelstahl - Special Materials Aerospace & Land Based Turbine

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.