BEARING STEELS

Application Segments

Aerospace

Available Product Variants

Long Products

Product Description

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

It is used typically for parts requiring through hardening properties, usually with hardness of approximately 60 HRC in section thicknesses 0.50 inch (12.7 mm) and under. E.g. bearing rings and rolling elements, bearing balls and races.

Process Melting

Airmelted + VAR

Applications

- Bearings
- Turbine and Engine Parts (Aerospace)
- Other Aerospace Components

Technical data

Material designation	
52100	Market grade
1.2067	SEL
102Cr6	EN

Standards	
6444	AMS

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Al	O
0.93 to 1.05	0.15 to 0.35	0.25 to 0.45	max. 0.015	max. 0.015	1.35 to 1.60	max. 0.10	max. 0.25	max. 0.30	max. 0.050	max. 0.0015

Related to AMS 6444

Delivery condition

Annealed

Hardness (HB)	max. 248 | Cold finished and annealed, above 12.7 mm diameter

Annealed

Hardness (HB)	max. 207 | Hot finished and annealed, above 12.7 mm diameter
Tensile Strength (MPa)	max. 827 | Cold finished and annealed, max 12.7 mm diameter

Round Bars and Wire Rod (if any)

Diameter mm			MOQ ex mill kg	Length m			Tolerance
ROLLED							
12.50	-	55.00	1,100	3.00	-	4.00	IT h/k 11
55.01	-	120.00	1,200	3.00	-	4.00	IT h/k 11
120.01	-	140.00	1,200	3.00	-	5.00	IT h/k 14

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

voestalpine BÖHLER Edelstahl GmbH & Co KG
Mariazeller Straße 25
8605 Kapfenberg, AT
T. +43/50304/20-0
E. info@bohler-edelstahl.at
https://www.voestalpine.com/bohler-edelstahl/de/

voestalpine
ONE STEP AHEAD.