ENGINEERING STEELS - MARTENSITIC PRECIPITATION HARDENING (MARAGING) STEELS

Application Segments

Aerospace

Available Product Variants

Long Products

Product Description

BÖHLER V250 is a premium aircraft-quality, maraging alloy steel in the form of bars, forgings and stock for forging.

In contrast to heat treatable steels its outstanding tensile properties are not due to a hardened structure with relatively high carbon content, but to precipitation of intermetallic phases from a ductile nickel bearing matrix containing almost no carbon.

These products have been used typically for parts requiring through hardening, without quenching, to a minimum yield strength of 247 ksi (1700 MPa) and where such parts may require welding during fabrication, but usage is not limited to such applications. E.g highly stressed components for the aircraft and rocket industries.

Process Melting

VIM + VAR

Applications

- Structural parts (Aerospace)
- Other Aerospace Components

Technical data

Material designation	
Maraging 250	Market grade
1.6359	SEL
X2NiCoMo18-8-5	EN

Standards	
S162	BS

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Co	Ti	Al	B	Fe	Ca	Zr
max. 0.010	max. 0.10	max. 0.10	max. 0.010	max. 0.010	max. 0.25	4.6 to 5.2	17.0 to 19.0	7.0 to 8.5	0.30 to 0.60	0.05 to 0.15	max. 0.005	REM	max. 0.05	max. 0.02

Related to BS S 162

Delivery condition

Solution annealed

Hardness (HB)	max. 321 | S162B, Bars forged or rolled

Round Bars and Wire Rod (if any)

Diameter mm			MOQ ex mill kg	Length m			Tolerance
ROLLED							
5.01	-	12.49	1,100	3.00	-	4.00	IT h/k 11
12.50	-	55.00	1,300	3.00	-	4.00	IT h/k 11
55.01	-	120.00	2,500	3.00	-	4.00	IT h/k 11
120.01	-	140.00	2,500	3.00	-	5.00	IT h/k 14
FORGED							
140.01	-	203.20	2,200	3.00	-	5.00	IT h/k 14

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ONE STEP AHEAD.