HEAT TREATABLE STEELS AND PRECIPITATION HARDENING STEELS

Application Segments

Aerospace | Automotive

Available Product Variants

Long Products

Product Description

BÖHLER V358 in the British Standard Aerospace Series is a 3% Cr-Mo-V nitriding steel offering a tensile strength of 1,320-1,470 MPa, combined with excellent hardenability for high core strength and develops a hard wear resistant case after surface treatment. The alloy is produced by vacuum arc remelting. (VAR)

Typical applications are gear shafts and crankshafts with maximum diameter of 70mm for the aircraft industry and automtovie components.

Process Melting

Airmelted + VAR

Applications

- Other Aerospace Comps.
- Automotive
- Structural parts (Aerosp)
- Automotive Racing
- Turbine and Engine Parts (Aerosp)

Technical data

Material designation	
E40CDV12	Market grade
1.8523	SEL
40CrMoV13-9	EN

Standards	
S132	BS

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	V	Sn
0.35 to 0.43	0.10 to 0.35	0.40 to 0.70	max. 0.020	max. 0.020	3.0 to 3.5	0.80 to 1.10	max. 0.30	0.15 to 0.25	max. 0.030

Related to BS S132

Delivery condition

Annealed

Hardness (HB)	max. 277

Round Bars and Wire Rod (if any)

Diameter						MOQ ex mill		Length						Tolerance
mm			inch			kg	lbs	m			ft			
ROLLED														
5.01	-	12.49	0.197	-	0.492	1,100	2,425	3.00	-	4.00	9.84	-	13.12	IT h/k 11
12.50	-	55.00	0.492	-	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	2,500	5,512	3.00	-	4.00	9.84	-	13.12	IT h/k 11
120.01	-	140.00	4.725	-	5.512	2,500	5,512	3.00	-	5.00	9.84	-	16.40	IT h/k 14
FORGED														
140.01	-	203.20	5.512	-	8.000	2,200	4,850	3.00	-	5.00	9.84	-	16.40	IT h/k 14

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

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ONE STEP AHEAD.