

BS S155 (300M)

High Silicon NiCrMoV Steel Vacuum Arc Remelted (VAR)

Features & Benefits

- Ultra high strength (1900 MPa)
- Good fatigue resistance
- Excellent transverse properties

Applications

- Undercarriage components
- Gears
- Shafts

Supply Condition & Availability

- Supplied as normalised and tempered bright machining quality
- Readily available from stock in size range 18 mm - 250 mm dia.
- Other sections on request

Related Specs

AMS 6257, 6417/9
SAE 4340M
BMS 7.26
DMS 1935
MIL-S-8844

Chemical Composition (Wt %)

	Min	Max
C	0.39	0.44
Si	1.50	1.80
Mn	0.60	0.90
P	-	0.015
S	-	0.015
S&P	-	0.025
Cr	0.70	0.95
Mo	0.30	0.45
Ni	1.65	2.00
V	0.05	0.10

Final Heat Treatment

Oil quench from 870°C. Double temper at 300°C.

Hardness

After heat treatment the hardness should be:

HB 534 - 601
HRC 52 - 55
HV 571 - 635

Mechanical Properties (after final heat treatment)

Direction	0.2% Proof Stress	Tensile Strength		Elongation	Reduction of area
	MPa	MPa		%	%
	Min	Min	Max	Min	Min
Longitudinal	1550	1900	2100	8	30
Transverse	1550	1900	2100	5	20

N.B. 1MPa = 1N/mm²

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