

 HILLFOOT METALS SUPPLY CHAIN INNOVATION	MATERIAL DATASHEET	
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Material Grade: **S157**

Available Variant(s):

Variant	Intended use	Condition of supply	Dimensional tolerance	Straightness	Clean-up
S157A	Forging stock/ billets for subsequent forging	Softened	EN10060	EN10060	Per agreement
S157B	Black bars for further machining	Softened	EN10060	EN10060	No less than 4%
S157C	Forgings	Softened	Per agreement	Per agreement	Per agreement
S157D	Bright bars for further machining	Softened followed by cold drawing or machining	BS EN 10278	BS EN 10278	BS EN 10278

Nearest engineering grade: **BS970, 832M13**

Associated standards:¹ **BS S157: 1976**
BS 6S 100: 2010

Melting/refining method(s): **Manufactured by an electric process**

1. TYPICAL CHEMICAL COMPOSITION

%	<u>C</u>	<u>Si</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Cr</u>	<u>Mo</u>	<u>Ni</u>	<u>Cu</u>
Min	0.12	0.15	0.3	0	0	0.8	0.2	3	0
Max	0.17	0.4	0.6	0.025	0.02	1.1	0.3	3.5	0.3

2. TYPICAL MECHANICAL PROPERTIES

Test type				Tensile and hardness test (at room temperature)						Impact test (izod)
				Yield (Re)	0.2 % proof	UTS (Rm)	Elong (A)	R of A (Z)	Hardness	Room Temp
Condition	Nominal diameter or thickness	Direction	Unit	N/mm2	N/mm2	N/mm2	%	%	HB	ft/lbs
Softened (condition of delivered material)	-	-	Min	-	-	-	-	-	-	-
			Max	-	-	-	-	-	241	-
Heat treated as per spec TEST SAMPLE ONLY	-	L	Min	-	930	1180	8	-	-	25
			Max	-	-	1380	-	-	-	-

¹ valid at the time of writing.

Whilst great care and attention has been paid to compose this datasheet but we will not take the responsibility for any errors.