

 HILLFOOT METALS SUPPLY CHAIN INNOVATION	MATERIAL DATASHEET	
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Material Grade: **S106**

Available Variant(s):

Variant	Intended use	Condition of supply	Dimensional tolerance	Straightness	Clean-up
S106A	Forging stock/ billets for subsequent forging	Softened	EN10060	EN10060	Per agreement
S106B	Black bars for further machining	After final heat treatment	EN10060	EN10060	No less than 4%
S106C	Forgings	After final heat treatment	Per agreement	Per agreement	Per agreement
S106D	Bright bars for further machining	After final heat treatment	BS EN 10278	BS EN 10278	BS EN 10278

Nearest engineering grade: **BS970, 722M24**

Associated standards:¹ **BS 4S 106:1976**
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>Sn</u>	<u>Cu</u>
Min	0.2	0.1	0.4	0	0	3	0.5	0	-	-
Max	0.28	0.35	0.7	0.02	0.02	3.5	0.7	0.3	0.03	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/thickness	Direction	Unit	N/mm2	N/mm2	N/mm2	%	%	HB	ft/lbs
Softened	-	-	Min	-	-	-	-	-	-	-
			Max	-	-	-	-	-	269	-
Final heat treatment condition (LRS 150 mm)	-	L	Min	-	740	930	13	-	269	35
			Max	-	-	1080	-	-	321	-

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.