

 HILLFOOT METALS SUPPLY CHAIN INNOVATION	MATERIAL DATASHEET	
	38MnB5/ 39MnB5 – 1.5532	Page 1 of 1

Material Grade: 38MnB5 (1.5532) re-named as 39MnB5 in ISO683-2

Associated standards:¹ BS EN ISO 683-2:2018 (current)
EN10083-3 (obsolete, all editions)

Material Condition(s): No designation or +U – Untreated (as rolled)
+S – With improved shearability
+QT – Quench and tempered

Surface Finish: No designation or +HW – Black rolled
+RM – Rough machined – rough machined rolled or forged

Typical tolerance(s):

Surface finish	Product type	Standard	Dimensional tolerance	Straightness	Clean-up
No designation/ +HW	Rolled bar	BS EN ISO683-2	EN10060	EN10060	ISO9443 Class A
+RM	Rolled bar + rough machined	BS EN ISO683-2	EN10060	EN10060	ISO9443 Class A

Other supply options: *(only applicable to rolled bar standards)*

+H - with an additional hardenability test

1. TYPICAL CHEMICAL COMPOSITION *(from the most current version of the standard(s))*

%	<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>	<u>B</u>
Min	0.36		1.15	0	0	-	-	-		0.0008
Max	0.41	0.4	1.45	0.025	0.035	-	-	-	0.4	0.005

2. TYPICAL MECHANICAL PROPERTIES *(from the most current version of the standard(s))*

Test type				Tensile and hardness test (at room temperature)						Impact test (KCV) Average of 3 / individual value
				Yield (Re)	0.2 % proof	UTS (Rm)	Elong (A)	R of A (Z)	Hardness	Room Temp
Condition	Nominal diameter d (mm)	Direction	Unit	N/mm2	N/mm2	N/mm2	%	%	HB	J
Untreated (No designation or +U)	-	-	Min	-	-	-	-	-	-	-
			Max	-	-	-	-	-	-	-
Quench and tempered +QT	≤ 16 ⌀	L	Min		900	1050	12	50	-	
			Max	-	-	1250	-	-	-	-
Quench and tempered +QT	16 < d ≤ 40 ⌀	L	Min		700	850	12	50	-	60/42
			Max	-	-	1050	-	-	-	-

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.