

Carbon

	EQUIVALENT GRADES					GRADES FOR POTENTIAL SUBSTITUTION	
Product (Bold denotes stocked)	BS 970: 1955	British Standards	European	Werkstoff	SAE/AISI/AMS	Lesser	Greater
230M07 (230)	EN1A		11SMn30	1.0715	1113 1213		
070M20 (070)	EN3A EN32	080A15	C15 C20/C22 ST52-3 (ST5) S235 (S23) S275 (S27 & S28)	1.0402 1.0401 1.1151	1020 1023		LF2 (LF2)
S355 (S36 & S38)	EN14	150M19 (150)	ST52-3 (ST5) S275 (S27 & S28)	1.1170	1320 1024	LF2 (LF2)	
080M40 (080)	EN8 EN8D	080A42 (08A)	C40	1.0511	1040		C45 (08B) 070M55 (07A)
C45 (08B)		080M46 (08E) 080M50 (08I)			1050 (10M)	080M40 (080) C40	070M55 (07A)
070M55 (07A)	EN9	080M50 (08I)	C55 C60 (C60)	1.0535	1050 (10M) 1055	C45 (08B)	

Through Hardening

605M36 (605)	EN16						38MB5 (035) 4130 (41C) 945M38 (945)
709M40 (709)	EN19	708M40 (708)	42CrMo4 (C44) 42CrMoS4	1.7225	4140 (41F & 41G) 4142 B7 L7	945M38 (945) 41CrS4 (C41)	4145 (41I) 4340 (43B) 817M40 (817) 826M40 (826)
817M40 (817)	EN24		34CrNiMo6 (C36) 40CrNiMo6	1.6565 1.6582	4340 (43B)	709M40 (709) 36CrNiMo4	4145 (41I) 4340 (43B) E4340 (43X) 826M40 (826) 4330V (43V)
826M40 (826)	EN26		40NiMoCr10-5	1.6745		4340 (43B)	4330V (43V) S99
835M30 (83A)	EN30B		30NiCrMo16-6	1.6747		1.2767	4330V (43V)
722M24 (722)	EN40B		32CrMo12	1.7361		31CrMoV9	S106 (72A)
100Cr6 (CC1)	EN31	535A99 (535)		1.3505	52100		100CrMo7-3 (CC3)

Case Hardening

665M17 (665)	EN34				4615 4617		655M13 (655)
655M13 (655)	EN36B	832M13 (832)	14NiCr4	1.5752	3415 3310	18CrNiMo7-6 (C18)	832M13 (832) 835M15 (835) S157
832M13 (832)	EN36C	655M13 (655)				655M13 (655) 18CrNiMo7-6 (C18)	S157
835M15 (835)	EN39		15NiCrMo16-5	1.6723			S156
8620 (86B)	EN351	635M15 (635) 805M20	21NiCrMo2-2 16NiCr4	1.6543	8617	16MnCr5 (M15)	8630 (86D) 655M13 (655) 18CrNiMo7-6 (C18)
18CrNiMo7-6 (C18)							
16MnCr5 (M15)		590M17	20MnCr5 (M25)	1.7131	5115 5117		8620 (86B) 635M15 (635) 655M13 (655) 18CrNiMo7-6 (C18)

Aero/Motorsport

300M (300)		S155			AMS6417 (VAR) AMS6419 (VAR) AMS6257 (VAR)	E4340	
S156 (83D)		S82	16NCD17	1.6722 1.6723	AMS6264 (EAF/ESR)	835M15/EN39	
Hy-Tuf (HYT)					AMS6425 (VAR)		
E4340 (43X)					AMS6414 (VAR) AMS6415 (EAF/ESR)		
S106 (72A)						722M24/EN40B	
S157					AMS6260 (EAF/ESR) AMS6265 (VAR) AMS6267 (ESR/VAR)	655M13 (655) 832M13 (832) SAE 9310	
S99		S98				826M40 (826)	
S132			40CDV12	1.8523			
15-5 (Y15)				1.4545	AMS5659 (ESR/VAR)	Grade XM-12 ASTM A564 S15500 (UNS)	
17-4 (Y17)				1.4542	AMS5622 (ESR/VAR) AMS5642 (EAF/ESR) AMS5643 (EAF/ESR)	Grade 630 ASTM A564 S17400 (UNS)	

Grades & Sizes Continued

Oil & Gas

Tool

Product (Bold denotes stocked)	EQUIVALENT GRADES					GRADES FOR POTENTIAL SUBSTITUTION	
	BS 970: 1955	British Standards	European	Werkstoff	SAE/AISI/AMS	Lesser	Greater
4130 mod (41C)			25CrMo4 34CrMo4	1.7218 1.7220	4135		
4140 mod (41F & 41G)	EN19	708M40 (708) 709M40 (709)	42CrMo4 (C44)	1.7225	4142 B7 (B7A) L7		4340 (43B)
4145 mod (41I)						817M40 (817)	4340 (43B)
4330V (43V)						826M40 (826)	835M30 (83A)
420M (Y42)	EN56C	420S29 420S37	X15Cr13 X20Cr13	1.4021 1.4024	420 (Y42) 13Cr (Y42)		
1.2510 (T10)		BO1	100MnCrW4		O1		
1.2344 (T44)		BH13	X40CrMoV5-1		H13		
1.2379 (T79)		BD2	X155CrVMo12-1		D2		

Equivalent Grades

Grades of equivalent (not identical) chemistry. Please note the equivalent grades are based on chemistry only, and may not meet the necessarily mechanical properties (in the standard 'as stocked' state).

Grades for Potential Substitution

Grades capable of achieving similar mechanical properties (material may need further treatment to achieve the desired properties). The potential substitution grades are based on capability to achieve mechanical properties, and are not necessarily similar in chemical analysis.

For Internal Reference Only

NOTES

- 1) Items in bold denote stocked item.
- 2) Three digit codes shown in brackets denotes grade reference for product code within Chorus.
- 3) Where queries exist regarding offering equivalent or substituted grades, these should be verified by the customer and/or Technical.

For External Reference Only

NOTES

- 1) Items in bold denote stocked item. All other grades available to source.
- 2) Where queries exist regarding offering equivalent or substituted grades, please refer to the Sales Team.

For full details on grades, service and technical data, please call 0114 233 11 33 or visit www.hillfoot.com

Every care has been taken in the preparation of this technical data, however no liability can be accepted for any errors, nor the consequences arising from such errors.