

TECHNICAL GUIDE

212A42 / EN8DM / 46S20

Steel Description



212A42 / EN8DM / 46S20 is a medium carbon semi freecutting steel that is supplied in the bright drawn condition. It can be heat treated for further surface hardening to produce components with enhanced wear resistance, but welding is not recommended. It is used to manufacture automotive components including pins, shafts, studs and steering linkages. 212A42 / EN8DM / 46S20 is a free machining version of 080M40 / 080A42 / EN8 on which we also have a technical guide.

BS970: 1955	BS970: 1991	COLOUR CODE	DESCRIPTION
EN8DM	212A42		Bright drawn semi freecutting carbon steel

CHEMICAL ANALYSIS	
Car	0.40 / 0.45
Sil	0.25 max
Mang	1.00 / 1.30
Phos	0.06 max
Sul	0.12 / 0.20

INTERNATIONAL SPECIFICATION COMPARISON	
BRITISH BS 970:1991	212A42
BRITISH BS 970:1955	EN8DM
GERMAN DIN	46S20
FRENCH AFNOR	35MF6
SWEDISH SS	1957
AMERICAN SAE	1141
EUROPEAN STEEL NO.	1.0764
EUROPEAN STEEL NAME	36SMn14
EUROPEAN STANDARD	EN10277-3

QUICK VIEW SYSTEM	
MACHINEABILITY	100
WELDABILITY	Not recommended
HARDENABILITY	Small sizes suitable for induction hardening
SELECTION GUIDE AND USAGE EXAMPLES	As EN8D, but more suitable for repetition machining

SIZE RANGE SUMMARY			
	Rounds	IMP	1/4" - 4" dia
		MM	8mm - 80mm dia
	Hexagons	IMP	.750" a/f hex
		MM	10mm - 19mm a/f hex

SEE STOCK RANGE FOR SPECIFIC SIZES.