

TECHNICAL GUIDE

P20 MOULD STEEL

Steel Description

P20 (1.2311) Pre hardened to approximately BHN 300 (1000 n/mm²), P20 requires no further heat treatment, therefore avoiding risk of distortion or cracking. Although pre-hardened P20 is still capable of being machined and of giving a good polished finish. Typical applications include: Plastic moulds, backers, bolsters, die holders.

P20S (1.2312) Delivered pre-hardened, this material is ready for use at approximately BHN 280/325, similar to P20 (1.2311) but with a higher sulphur content which provides much improved machinability. This grade is not suitable for polishing or other applications requiring a fine finish. Typical applications include: large mould frames and bolsters.

BS 4659	COLOUR CODE	DESCRIPTION
BP20		Mould Steel

TYPICAL ANALYSIS		MECHANICAL PROPERTIES	
Car	0.40	Tensile Strength N/MM2 Min Rm	
Sil	0.40	Yield Stress N/MM2 Min Rm	
Mang	1.00	Elongation A Min % on 5.65√SO	
Phos		Izod Min	
Sul		Kcv Min	
Chr	1.20	Proof Stress 0.2% N/MM2 Min	
Moly	0.35	Brinell Hardness	
Van			

INTERNATIONAL SPECIFICATION COMPARISON	
BS 4659	BP20
GERMAN DIN	40CrMnMo7
FRENCH AFNOR	
SWEDISH SS	
AMERICAN SAE	P20
EUROPEAN STEEL NO.	1.2311
EUROPEAN STEEL NAME	
EUROPEAN STANDARD	

SIZE RANGE SUMMARY			
	Rounds	MM	20-228mm dia
	Flats	IMP/MM	Contact sales with your required size.
	Squares	IMP/MM	Contact sales with your required size.

SEE STOCK RANGE FOR SPECIFIC SIZES.

QUICK VIEW SYSTEM	
MACHINEABILITY	40
WELDABILITY	Not recommended
HARDENABILITY	Good
SELECTION GUIDE AND USAGE EXAMPLES	Production or plastic moulds, shafts, rails & wear strips