

TECHNICAL GUIDE

D3 TOOL STEEL




Steel Description

D3 is a high carbon chrome tool steel that displays excellent abrasion/wear resistance and has good dimensional stability and high compressive strength. It is heat treatable and will offer a hardness in the range 58-64 HRC. Due to its abrasion resistance in the hardened condition, machining should be limited to final grinding and with its high carbon content, it loses toughness to other high carbon chrome grades. Typical applications include brick and ceramic die liner moulds and forming rolls.

BS 4659	COLOUR CODE	DESCRIPTION
BD3		High Carbon Chromium Steel

CHEMICAL ANALYSIS		MECHANICAL PROPERTIES	
Car	1.90/2.30	Tensile Strength N/MM2 Min Rm	
Sil	0.60 Max	Yield Stress N/MM2 Min Rm	
Mang	0.60 Max	Elongation A Min % on 5.65√SO	
Phos		Izod Min	
Sul		Kcv Min	
Chr	12.0/13.0	Proof Stress 0.2% N/MM2 Min	
Moly		Brinell Hardness	Ann'd 255max
Van	0.50 Max		

INTERNATIONAL SPECIFICATION COMPARISON	
BS 4659	BD3
GERMAN DIN	X210CR12
FRENCH AFNOR	Z200C12
SWEDISH SS	
AMERICAN SAE	D3
EUROPEAN STEEL NO.	1.2080
EUROPEAN STEEL NAME	
EUROPEAN STANDARD	

SIZE RANGE SUMMARY			
	Rounds	IMP	3/4" - 4" 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	25
WELDABILITY	Not Recommended
HARDENABILITY	Excellent
SELECTION GUIDE AND USAGE EXAMPLES	Blanking & forming tools for hard & abrasive materials