

Steel grade

Material No. / Werkstoff-Nr.	PREMIUM 1.2099
Description	~X5CrS12
BS	1.2099 (~RoyAlloy)
AISI/SAE	1.2099
Search for alternatives in the ABRAMS STEEL GUIDE®	www.steel-guide.co.uk/alternatives/1.2099

Specifications



Precision flat steel with machining allowance [PFS/BA]
L: 500 mm



€co-Präz® [€co]
L: 500 mm



Precision round steel with machining allowance [PRS/BA]
peeled / rough-turned
L: 500 mm
L: 1,000 mm

Chemical composition BS 1.2099 (reference value %) + additives

C	Mn	S	Cr
0.05 – 0.05	1.0 – 1.0	0.12 – 0.12	12.5 – 12.5

Physical properties

Hardness (delivery condition)	max. 330 HB, tempered
Tensile strength R_m (as received condition)	approx. 1125 N/mm ²
Working hardness	max. 35 HRC

Technical properties

Pre-hardened, corrosion resistant plastic mould steel. Magnetisable, excellent machinability and easily weldable. Resistant to aggressive plastics and humid conditions. Further heat treatment is not intended.

Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembling parts, moulding frames, plastic moulds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

Heat treatment

	Temperature	Cooling	Hardness
Soft annealing	850 - 880°C	Furnace	max. 330 HB
Stress relief annealing	480°C	Furnace	
Hardening	1000 - 1050°C	Quenching in Oil	

