

# P20 TOOL STEEL –Rods, Flats & Squares



**P20** (1.2311) Pre hardened to approximately 300 B.H (65 t.s.i) 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:** Plastic moulds, backers, bolsters, die holders. Also suitable for other applications such as rails, shafts and wear strips

**P20S** (1.2312) Delivered pre-hardened this material is ready for use at approximately 280/325 H.B. 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:** Suitable for large mould frames and bolsters

**P20N** (1.2738) Delivered pre hardened ready for use at 280/325 H.B. With added Nickel to ensure consistent hardness through large sections. Easy to polish and readily machinable.

**Typical applications:** Used for quality for pressing and injection moulding tools. If the section exceeds 400mm P20 (1.2311) won't provide a consistent through hardness. Suitable for hard chrome plating and for nitriding

**PS09 equivalent grades: X38CrMo16 / DIN 1.2316**

## Typical chemical composition of PS09 Mould Steel

C	SI	Cr	Mo	Mn	P	S	Ni
0.33-0.45%	1.00% max	15.50-17.50%	0.80-1.30%	0-1.50%	0.03% max	0.03% max	1.00% max