

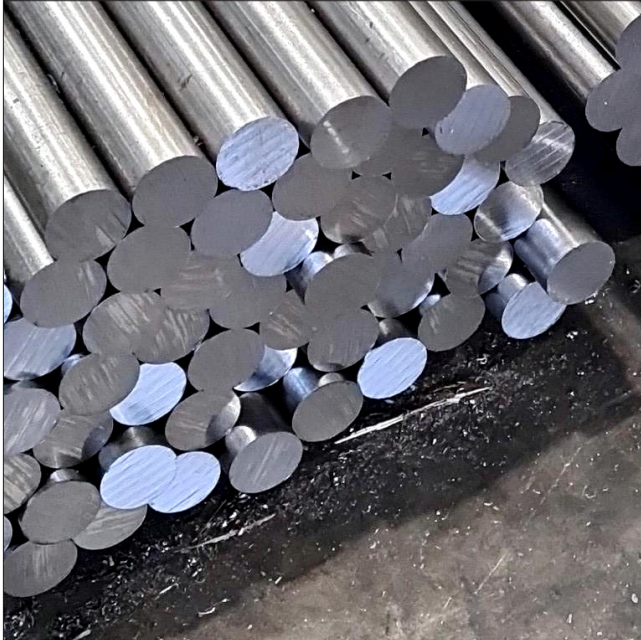
# P20 Tool Steel

FOR INJECTION MOULDING & EXTRUSION DIES

We are a division of the Smiths Metal Centres Limited Group

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Page: 1 of 1



**P20 tool steel** is a versatile product supplied pre-hardened for injection moulding and extrusion die applications.

The material has already been subjected to heat treatment to reach its required hardness, so it does not need further treatment once machined. Heat treating the material increases the product's overall toughness and hardness.

## Chemical Composition (weight, %)

	C	Si	Mn	Cr	Mo	P	S	Ni	Cu
Min.	0.28	0.40	0.65	1.50	0.35				
Max.	0.40	0.60	0.95	1.80	0.55	0.025	0.025	0.40	0.25

\* Properties as per BS 4659

## Characteristics:

**P20 tool steel** is a versatile and capable engineering material. The product benefits from excellent toughness and will work well under high stress. Wear resistance is also good, making the material ideal for tools where abrasion is an issue. Our product also retains its shape due to its high hardness levels. The alloy offers good dimensional stability and does not expand much when exposed to heat, nor is the material sensitive to the absorption of water. Such qualities are essential when used in moulding and tooling applications.

## Machining:

Machining the alloy is straightforward, but the hardness and toughness of the material need consideration. Recommendations include using a sharp cutting tool (HSS or carbide) and a suitable coolant to prevent unnecessary heat.

## Applications:

**P20 tool steel** finds use in many engineering applications, including:

- Mould tooling and injection moulding
- Die casting, extrusion dies and complex metal parts
- Forming tools and stamping dies
- Gears, shafts and bearings

## Availability:

We stock **P20 tool steel** in round and square bars of various diameters. We supply the product in standard lengths or cut to your specific size requirements.