Plastic Mould Steel P20 (1.2311 / 1.2738)

Designations: AISI P20 | 1.2311 (40CrMnMo7) | 1.2738

Applicable standards: ASTM A681, EN ISO 4957

Product Description

Ochnology is a manufacturer and supplier of P20 plastic mould steel, also sold as 1.2311 and 1.2738, in pre-hardened plates and blocks. It is delivered at about 28–34 HRC, so moulds can be machined without a further hardening step. P20 steel offers good polishability, uniform hardness through the section and good machinability, and is used for injection moulds, die holders, bolsters and large plastic moulds for automotive and appliance parts.

Chemical Composition (% by weight)

Element	P20 (ASTM A681)	1.2311 (40CrMnMo7)
Carbon (C)	0.28–0.40	0.35–0.45
Silicon (Si)	0.20–0.80	0.20–0.40
Manganese (Mn)	0.60–1.00	1.30–1.60
Chromium (Cr)	1.40–2.00	1.80–2.10
Molybdenum (Mo)	0.30–0.55	0.15–0.25
Phosphorus (P)	≤ 0.030	≤ 0.030
Sulphur (S)	≤ 0.030	≤ 0.030

Mechanical and Physical Properties

Property	P20 (ASTM A681)	1.2311 (40CrMnMo7)
Delivery hardness (pre-hardened)	about 28–34 HRC	about 28–34 HRC

Supply Details

Item	Detail
Density	7.85 g/cm^3
Forms	Plate, block, flat bar
Delivery condition	Pre-hardened (quenched and tempered)
Certification	Mill test certificate (EN 10204 3.1) and third-party inspection available on request

Typical Applications

- Injection moulds
- Die holders and bolsters
- Large plastic moulds for automotive and appliance parts
- Mould bases and plates

Ordering Information

To request a quotation, send the grade and standard, form, size or thickness, quantity, delivery condition, destination port and required certificates to info@ochnology.com or bd@ochnology.com. Typical values apply to the stated standards; actual values are certified on the mill test certificate for each lot.

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