

D2

Product Datasheet



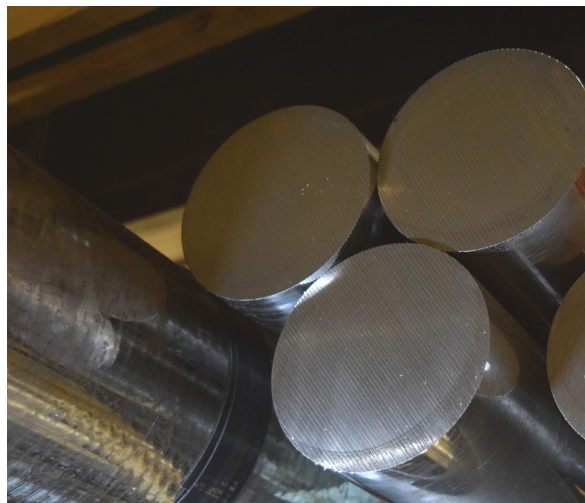
Tool Steel

Service. Quality. Value.

High Carbon, High Chromium Steel

D2 is ideal for use in applications where high abrasion and wear resistance is required.

D2 tool steel is a raw material used in applications where improved toughness is required. The alloy benefits from superior wear resistance combined with higher compressive strength. Once hardened, the alloys high chromium content gives the material improved corrosion-resistant characteristics. As a high wear and abrasion resistant steel, D2 offers a hardness range of 55 - 62 HRC. Classed as a high-carbon, high-chromium tool steel, D2 benefits from air hardening and finds use in a variety of engineering applications including heavy-duty press tools, punches, swaging dies, general-purpose dies, gauges and blanking tools.



Key Features

- High Compression Strength
- Low Distortion
- High Abrasion & Wear Resistance
- Heat Treatable
- Mild Corrosion Resistance

Applications

- Knives
- Punches & dies
- Thread rollers
- Coining
- Heavy duty press tools

Chemical Composition (weight %)

| | C | Mn | Si | Co | Cr | Mo | V | P | Ni | Cu | S |
|-----|-----|-----|-----|-----|------|-----|-----|------|-----|------|------|
| Min | 1.4 | | | | 11.0 | 0.7 | | | | | |
| Max | 1.6 | 0.6 | 0.6 | 1.0 | 13.0 | 1.2 | 1.1 | 0.03 | 0.3 | 0.25 | 0.03 |

Physical Properties

| | @ 20°C | @ 200°C | @ 400°C |
|--|-------------------------|-------------------------|-------------------------|
| Density (kg/dm ³) | 7.70 | 7.65 | 7.60 |
| Coefficient of thermal expansion (per °C from 0°C) | - | 11.0 x 10 ⁻⁶ | 10.8 x 10 ⁻⁶ |
| Thermal conductivity (cal/cm.s °C) | 40.9 x 10 ⁻³ | 50.4 x 10 ⁻³ | 55.2 x 10 ⁻³ |
| Specific heat (cal/g °C) | 0.110 | | |
| Modulus of elasticity: | | | |
| Kp/mm ² | 19 700 | 19 200 | 17 650 |
| N/mm ² | 193 000 | 188 000 | 173 000 |

We stock D2 tool steel in round bar, flat bar, square bar and plate

UK Service Centres:

Smiths Belfast **02895 908 897**
Smiths Biggleswade **01767 604 704**
Smiths Birmingham **0121 728 4940**
Smiths Bristol **0117 971 2800**
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Quality & Testing:



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