Tool steel D2 | 1.2379 | X153CrMoV12-1 - Annealed state

Tool Steel D2 offers high wear resistance but is demanding to CNC machine.

Mechanical properties

Ultimate tensile strength	758 - 860 MPa
Yield strength	420 - 470 MPa
Young's modulus (modulus of elasticity)	190 GPa
Elongation at break	16 %

Physical properties

Magnetism	Magnetic
Weldability	Poor

Thermal properties

Maximum service temperature	195 - 245 °C
Thermal expansion coefficent	10.3 - 12 10^-6/ºC
Thermal conductivity	29.3 - 31.7 W/(m·°C)

Electrical properties

Electrical resistivity	65 - 70 µΩ*cm

Post treatments

Post-Processing	Hardening & Annealing
Anodizing compatibility	Not suitable

Common applications

Cold forming dies	

Hot extrusion tools and dies	
Hot forging tools and dies	

Tool Steel D2 CNC Machining Applications & Parts

Tool Steel D2 is a high-carbon, high-chromium air-hardening tool steel renowned for its exceptional wear resistance, good compressive strength, and moderate toughness. This cold work steel maintains excellent dimensional stability and is ideal for applications requiring superior abrasion resistance.

Typical Parts We Machine from Tool Steel D2:

- **Wear Components:** Wear plates, guides, slides, industrial blades
- **Precision Dies:** Blanking dies, forming dies, thread rolling dies
- **Cutting Tools:** Slitter knives, cutting blades, surgical instruments

Our Machining Advantage:

We employ specialized grinding and machining techniques to handle D2's high hardness and wear resistance, delivering components with exceptional durability and precise tolerances for long-service applications.

Get an Instant Quote for your custom Tool Steel D2 parts today.