

DM D2

DM D2 is an alloy based on D2 tool steel, qualified for metal AM in Digital Metal's binder jetting system.

D2 tool steel exhibits high resistance to abrasive wear and good hardenability with decent toughness, making it suitable for a wide range of applications. It is most commonly used for cutting and deformation tools, such as shear cutters, punches, dies and stamping tools.

The material is stable during heat treatments, which allows for tailoring of the final properties through various heat treatments after sintering.

COMPOSITION - TYPICAL VALUES

Cr	Mo	V	Mn	Si	C	Fe
12.0	1.0	0.9	0.5	0.3	1.5	Bal

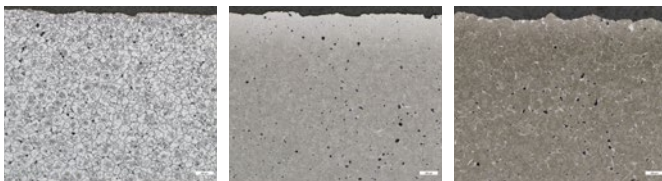
Related standards: UNS T30402, ASTM A681, 1.2379 and SKD11

PHYSICAL PROPERTIES - TYPICAL VALUES

Density	Hardness HRC		
	Relative	As sintered	Hardened + Tempered
98%	35	62	58

Hardening consists of a solution treatment with subsequent air quenching. Single tempering provides the results displayed.

METALLOGRAPHIC STRUCTURE



As sintered

Hardened

Hardened + Tempered



Specimens with subsequent process steps, bottom to top: as sintered, after hardening, after tempering and after blasting.



FEATURES

- Tool steel alloy
- Provides an effective combination of abrasive wear resistance and toughness
- Suitable for a wide range of applications
- Most commonly used for cutting and deformation tools

HARDNESS CURVE FOR TEMPERING OF DM D2

