

**DIN - Material - No.**

1.2379

Code

X155CrVMo12-1

Comparable standards

AISI:D2, EN: X160CrMoV 12 1

Chemical composition

(Typical analysis %)

C	Si	Mn	Cr	Mo	V
1.55	0.35	0.40	12.00	0.70	0.85

Steel properties

High wear resistance. Very good toughness, compression strength and dimensional stability. Possibility of nitriding.

Physical propertiesThermal conductivity W/(m.K) $\frac{20^{\circ}\text{C}}{20}$ Density g/cm³ $\frac{20^{\circ}\text{C}}{7.70}$

Coefficient of linear thermal expansion

10 ⁻⁶ °C ⁻¹	20-100	20-200	20-300	20-400	20-500	20-600	20-700	20-800°C
	9.8	11.7	12.1	12.8	12.9	13.0	13.2	13.5

Applications

High performance cutting tools, stamping, woodworking, drawing, deep drawing and pressing tools, for ceramics and pharmaceutical industries, rolls, measuring tools, plastic moulds, shear blades.

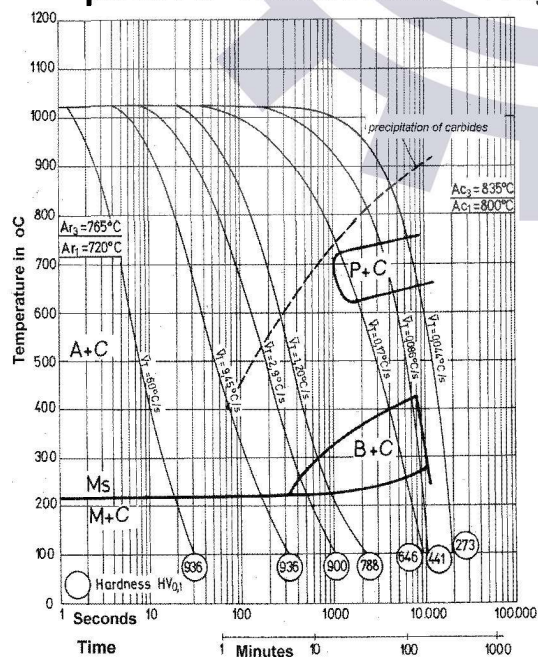
Toughness is better than OCR12 (AISI D3).

Stress Relieving

Holding at approx 650-700°C for one hour.

Heat treatment

Soft annealing °C	Cooling	Hardness HB						
840 - 880	furnace	max. 250						
Hardening from °C	in	Hardness after quenching HRC						
1000 - 1050	oil, air, thermal bath at 500 - 550°C	62 - 64						
Tempering	°C	100	200	300	400	500	600	700
	HRC	63	61	58	58	60	51	35

Time - Temperature - Transformation - Diagram**Tempering Diagram**