

Thermodur 2714

55NiCrMoV7

C 0.56 Cr 1.10 Mo 0.50 Ni 1.70 V 0.10

Steel properties

Tough die steel with high tempering resistance and good through-hardening properties. This grade is usually supplied in annealed condition or quenched and tempered to a working hardness of 370 to 410 HB (round) or 355 to 400 HB (square, flat).

Standards

AISI ~L6 AFNOR 55NCDW7

Physical properties

Coefficient of thermal expansion at °C
 $10^{-6} \text{ m}/(\text{m} \cdot \text{K})$

20 – 100	20 – 200	20 – 300	20 – 400	20 – 500	20 – 600
12.2	13.0	13.3	13.7	14.2	14.4

Thermal conductivity at °C
 $\text{W}/(\text{m} \cdot \text{K})$

20	350	700
36.0	38.0	35.0

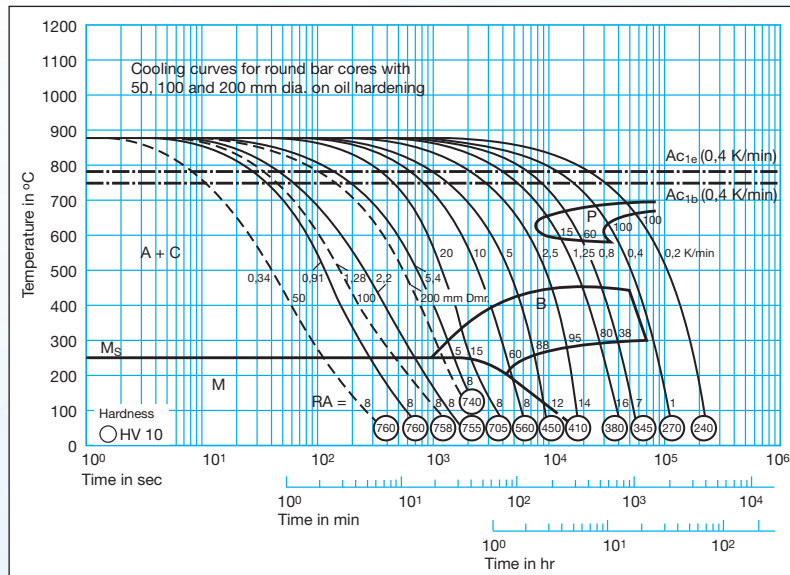
Applications

Standard steel for forging dies of all types, press dies, extrusion dies, retainer plates, armoured trim dies, hot-shear blades and tool holders.

Heat treatment

Soft annealing °C	Cooling	Hardness HB
650 – 700	Furnace	max. 250
Hardening °C	Quenching	Hardness after quenching HRC
830 – 870	Oil	58
860 – 900	Air	56
Tempering °C after quenching		
in Oil – HRC	100 200 300 400 450 500 550 600 650	
in Air – HRC	57 54 52 49 47 46 43 38 34	
	55 52 50 47 45 43 40 36 32	

Time-temperature-transformation diagram



Tempering diagram

