

Thermodur® 2714

Hot Work Steel

Data Sheet
55NiCrMoV7
AISI ~L6 / AFNOR 55NCDV7

28.04.26 REV.2.

Chemical composition in %

C	Cr	Mo	Ni	V
0.56	1.10	0.50	1.70	0.10

Material Properties

- High tempering resistance
- Good through-hardening properties
- Grade 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)

Typical Applications

- Forging dies of all types
- Press dies
- Extrusion dies
- Retainer plates
- Armoured trim dies
- Hot-shear blades
- Tool holders

Physical Properties

Coefficient of thermal expansion (10⁻⁶ K⁻¹)

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

Thermal conductivity (W/m.K)

20 °C	36.0
350 °C	38.0
700 °C	35.0

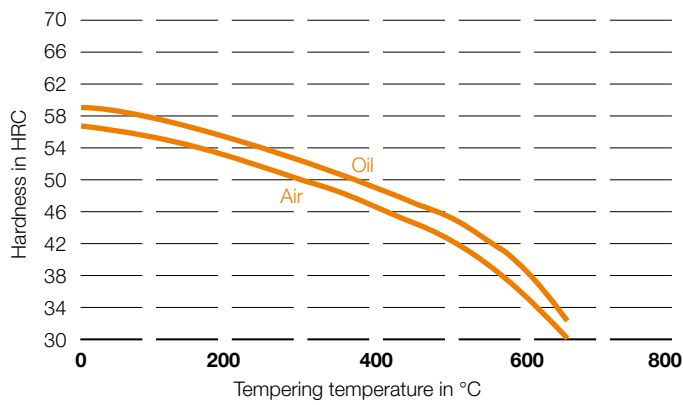
Heat Treatment

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

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Tempering



Time-temperature-transformation

Cooling curves for round bar cores with 50, 100 and 200 mm dia. on oil hardening

