

MATERIAL NO.:

1.2714 HH

**DESIGNATION:**  
**DIN:** 55 NiCrMoV 7  
**AFNOR:** 55 NCDV 7  
**UNI:** -  
**AISI:** L6

**INDICATORY ANALYSIS:**  
 C 0.56  
 Cr 1.10  
 Mo 0.50  
 Ni 1.70  
 V 0.10

**STRENGTH:** 40 - 43 HRC  
 (≈ 1250 - 1400 N/mm<sup>2</sup>)

**THERMAL CONDUCTIVITY AT 100°C:** 36  $\frac{W}{m K}$

**COEFFICIENT OF THERMAL EXPANSION**  
 [10<sup>-6</sup>/K]

100°C	200°C	300°C	400°C	500°C	600°C	700°C
12.2	13.0	13.3	13.7	14.2	14.4	

**CHARACTER:** » **Steel for through hardening, quenched and tempered**, with high temperature resistance, through hardenability and toughness

**APPLICATION:** » Mould inserts, cores and slides for plastic injection moulds

**TREATMENT BY:**  
 » Polishing:  
 technical polishing possible  
 » Etching, EDM, nitriding, hard chrome plating:  
 possible

**HEAT TREATMENT:** Already pre-toughened; usually no heat treatment required

» Soft annealing:  
 650 to 700°C for about 4 to 5 hours  
 slow controlled cooling inside the furnace: 10 to 20°C per hour to about 600°C;  
 further cooling in air, **max. 248 HB**

» Hardening:  
 830 to 900°C  
 keep curing temperature for 15 to 30 minutes  
 quenching in oil/water/compressed gas  
 obtainable hardness: **56 HRC**

» Tempering:  
 slow heating to tempering temperature immediately after hardening;  
 minimum time in furnace: 1 hour per 20 mm part thickness

**TEMPERING CHART:**

