

# Cryodur 2833

(100V1)

C 1.00 Si 0.20 Mn 0.20 V 0.10

**Steel properties** Wear-resistant water-hardening steel with high insusceptibility to overheating.

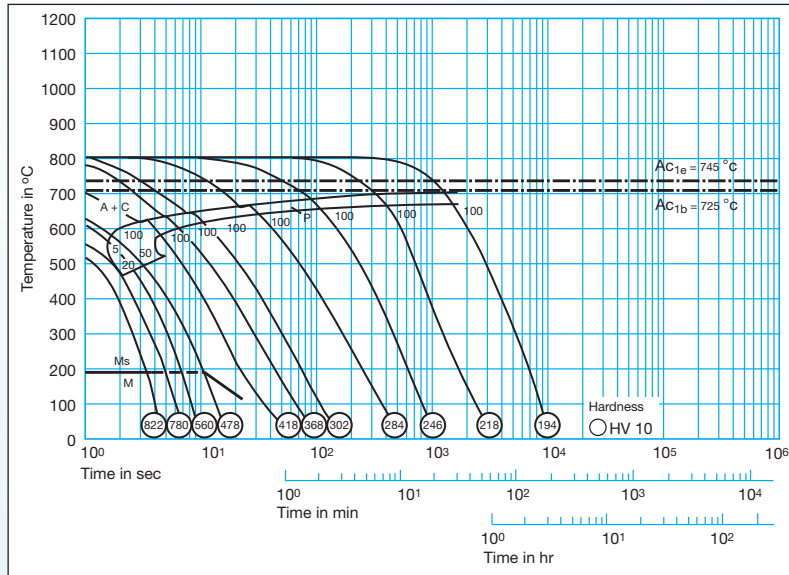
**Standards** AISI W210 AFNOR 100V2

**Physical properties** **Thermal conductivity at °C**  
 W/(m · K) 20 350 700  
 37.6 35.2 32.6

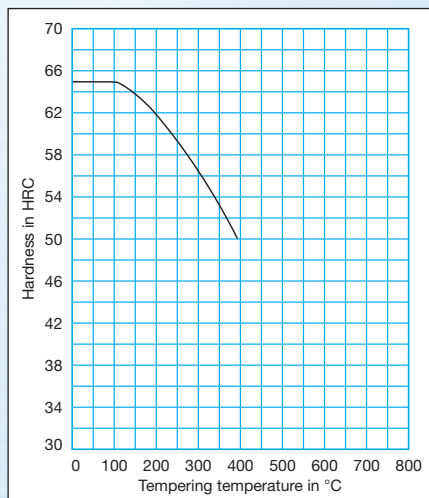
**Applications** Cold heading dies, first and finish upsetting punches, cold stamps and dies for the manufacturing of screws, rivets and bolts, compression pistons.

<b>Heat treatment</b>	<b>Soft annealing °C</b> 730 – 760	<b>Cooling</b> Furnace	<b>Hardness HB</b> max. 200	
	<b>Stress-relief annealing °C</b> 650 – 680	<b>Cooling</b> Furnace		
	<b>Hardening °C</b> 780 – 820	<b>Quenching</b> Water	<b>Hardness after quenching HRC</b> 65	
	<b>Tempering °C</b> HRC	100 200 300 400	65 62 57 50	

**Time-temperature-transformation diagram**



**Tempering diagram**



Reference numbers in brackets are not standardized in EN ISO 4957.