

Rapidur 3243

HS6-5-2-5

C 0.92 Cr 4.10 Mo 5.00 V 1.90 W 6.40 Co 4.80

Steel properties The cobalt content in this high-performance high-speed steel results in high red hardness and tempering resistance. As a consequence, this grade is particularly suitable for conditions involving thermal stresses and discontinuous cutting. Under the name Rapidur 3245, AISI M 35 + S and material number 1.3245, this steel grade is supplied with a higher sulphur content (S = 0.10 %).

Standards AISI M35 AFNOR Z85WDKCV06-05-05-04-02

Applications Heavy-duty milling cutters of all kinds, highly stressed twist drills and taps, profile knives, machining of high-strength materials, broaches.

Heat treatment	Soft annealing °C	Cooling	Hardness HB			
	820 – 860	Furnace	max. 269			
	Stress-relief annealing °C	Cooling				
	630 – 650	Furnace				
	1st pre-heating °C	2nd and 3rd pre-heating °C	Hardening ¹ °C	Quenching	Tempering °C	Hardness after tempering HRC
	up to approx. 400 in an air-circulating furnace	a) 850 b) 850 and 1050	1190 – 1230	a) Saltbath, 550 °C b) Oil c) Air	at least three times 540 – 570	64 – 67

¹ For cold-forming tools with a complex geometry, a hardening temperature at the lower end of the quoted range is recommended. The stated hardening temperatures apply to saltbath hardening only. For vacuum hardening, we suggest a reduction of 10 °C to 30 °C.