

STANDARD REFERENCE:
 ASTM A 193

RODACCIAI REFERENCES AND COMPARABLE STANDARDS

EUROPE		ITALY	GERMANY	FRANCE	UK	USA
EN 10083-3: 2006		(UNI 7845 - 78)	(DIN 17200 - 89)	(NF A 35-552 - 86)	(BS 970 pt. 1 - 96)	ASTM
Grade	N°		Werkstoff	N°		
(42CrMo4)	(1.7225)	(42CrMo4)	(42CrMo4)	(1.7225)	(42 CD 4)	(708M40)
						B7 - B7M 4140 - 4142

CHEMICAL COMPOSITION (CAST ANALYSIS) (%)

C	Si	Mn	P / max	S / max	Cr	Mo	Al
0,38 ÷ 0,48	0,15 ÷ 0,35	0,75±1,00	0,035	0,040	0,80 ÷ 1,10	0,15 ÷ 0,25	0,020÷0,050

MECHANICAL PROPERTIES - QUENCHED*

	Size mm	R _{p0.2} (MPa) min	R _m (MPa) min	A ₄ (%) min	Z (%) min	Hardness max
A193 - B7	≤M64**	720	860	16	50	321 HB or 35 HRC
	≤M100**	655	795	16	50	302 HB or 33 HRC
A193 - B7M	≤M100**	690	550	18	50	235 HB or 99 HRB

* A193-B7: minimum tempering temperature 593°C - A193-B7M: minimum tempering temperature 620°C
 ** thread diameter

WORKING TEMPERATURES RECOMMENDED

Operation	Hot forgings deformation	Normalizing	Soft annealing	Quenching in oil or water	Tempering
°C	850÷1150	850÷880	680÷720	830÷850	593÷650

