STANDARD REFERENCE:
ASTM A320/A320M

RODACCIAI REFERENCES AND COMPARABLE STANDARDS

EUROPE		ITALY	GERMANY		FRANCE	UK	USA
-		(UNI 7847 - 78)	(DIN)		(NF A 35-552-86)	(BS 970 pt. 1 - 96)	ASTM A 29
Grade	**N°**		**Werkstoff**	**N°**			
(40NiCrMo7)	(1.6565)	(40NiCrMo7)	(40NiCrMo8-4)	(1.6562)	-	(817M40)	4340

CHEMICAL COMPOSITION (CAST ANALYSIS) (%)

C	Si	Mn	P / max	S / max	Cr	Mo	Ni	Al
0,38 ÷ 0,43	0,15 ÷ 0,35	0,60÷0,85	0,035	0,040	0,70 ÷ 0,90	0,20 ÷ 0,30	1,65 ÷ 2,00	0,020 ÷ 0,050

MECHANICAL PROPERTIES

Size mm	Quenched and tempered (+QT)					
	$Rp_{0,2}$ (MPa) min	R_m (MPa) min	A_5 (%) min	Z (%) min	HB / max	KV-101°C / min
≤ 100	725	860	16	50	321	27J
Minimum tempering temperature 593°C						

HARDNESS LIMITS (JOMINY TEST)*

Limits of range		Hardness HRC at a distance from quenched end of test pieces (mm)														
		1,5	3	5	7	9	11	13	15	20	25	30	35	40	45	50
+H	**Max**	60	60	60	60	60	60	60	60	59	58	58	58	57	56	56
	Min	52	52	52	52	52	52	52	52	51	50	49	48	47	45	44

*For reference only

WORKING TEMPERATURES RECOMMENDED

Operazione	Hot forgings deformation	Isothermal annealing	Normalizing	Quenching in water or oil	Tempering
°C	900÷1100	800÷900 → 640	860÷880	830÷860	550÷650

rev. 10/2018