

STANDARD REFERENCE:

UNI EN 10083-3: 2006 (Hot-rolled products)

RODACCIAI REFERENCES AND COMPARABLE STANDARDS

	EUROPE		ITALY	GERMANY		FRANCE	UK	USA
	UNI EN 10083-3: 2006		(UNI 7845-78)	(DIN 17200-86)		(NF A 35-552-86)	(BS 970 pt.3-96)	ASTM A 29
	Grade	N°		Werkstoff	N°			
30CrNiMo8	30CrNiMo8	1.6580	-	30CrNiMo8	1.6580	30NCDB	-	4340

CHEMICAL COMPOSITION (CAST ANALYSIS) (%)

	Europe	C	Si / max	Mn	P / max	S / max	Cr	Mo	Ni	Al
30CrNiMo8	30CrNiMo8	0,26÷0,34	0,40	0,50÷0,80	0,025	0,035	1,80÷2,20	0,30÷0,50	1,80÷2,20	0,020÷0,050

MECHANICAL PROPERTIES - AS ROLLED CONDITION

Size mm	HB max to condition	Quenched and tempered (+QT)				
	Soft annealing (+A)	R _{p0,2} (MPa) min	R _m (MPa) min	A ₅ (%) min	Z (%) min	KV (J) min
≤ 16	248	1050	1250÷1450	9	40	-
> 16 ≤ 40	248	1050	1250÷1450	9	40	30
> 40 ≤ 100	248	900	1000÷1300	10	45	35
> 100 ≤ 160	248	800	1000÷1200	11	50	45
> 160 ≤ 250	248	700	900÷1100	12	50	45

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	56	56	56	56	55	55	55	55	55	54	54	54	54	54
	Min	48	48	48	48	47	47	47	46	46	45	45	44	44	43
+HH	Max	56	56	56	56	55	55	55	55	55	54	54	54	54	54
	Min	54	51	51	51	50	50	50	49	49	48	48	47	47	47
+HL	Max	53	53	53	53	52	52	52	52	52	51	51	51	51	50
	Min	48	48	48	48	47	47	47	46	46	45	45	44	44	43

WORKING TEMPERATURES RECOMMENDED

Operation	Hot forgings deformation	Isothermal annealing	Normalizing	Quenching in oil and water	Tempering
°C	800÷1100	800÷900 → 650	850÷880	830÷860	550÷660

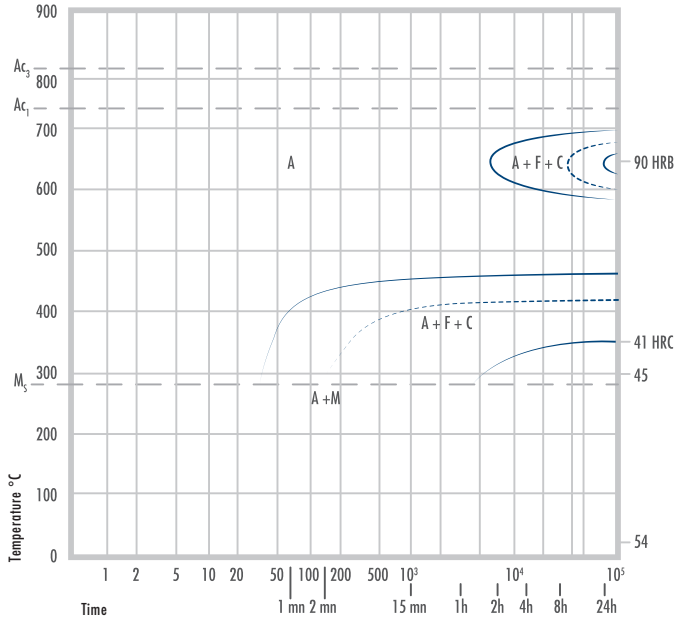
rev. 04/2013

DIRECT-HARDENING
ALLOYED

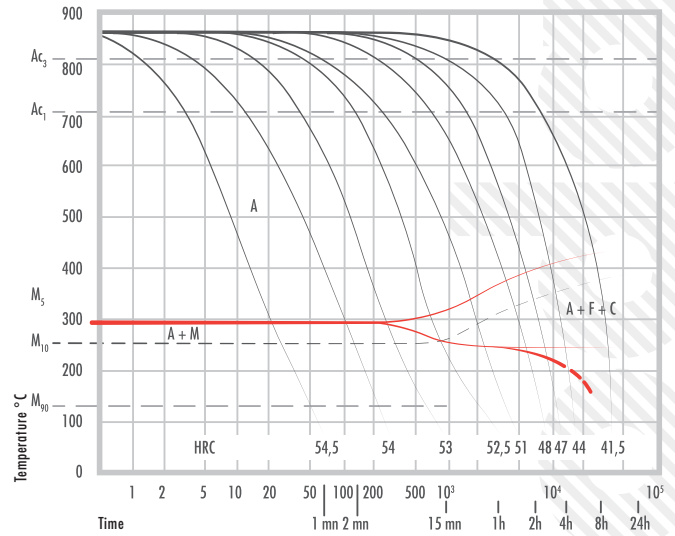
Rodacciai name

30CrNiMo8
3210

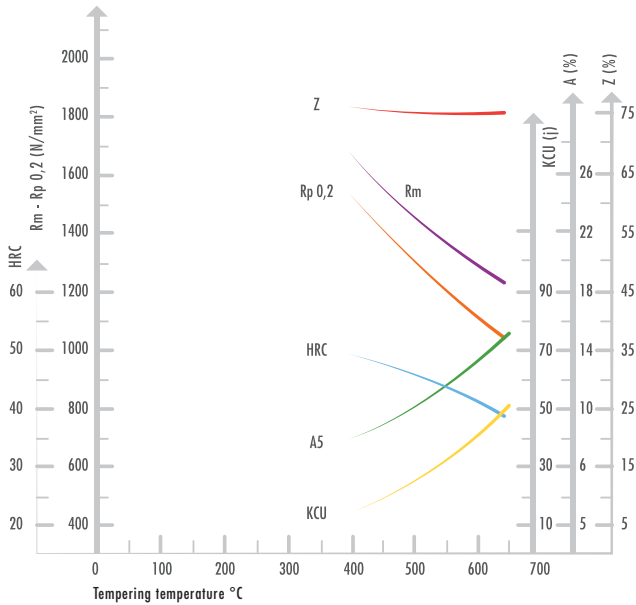
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CCT



TEMPERING CURVE



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30CrNiMo8

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