

STANDARD REFERENCE:
UNI EN 10087: 1998 (Hot-rolled products) | UNI EN 10277-3: 2008 (Bright products)
RODACCIAI REFERENCES AND COMPARABLE STANDARDS

EUROPE		ITALY	GERMANY		FRANCE	UK	USA
UNI EN 10087: 1998 UNI EN 10277-3: 2008		(UNI 4838-80)	(DIN 1651-88)		(NF A 35-561-92)	(BS 970 pt.3-91)	ASTM A 29
Grade	N°		Werkstoff	N°			
11SMn37	1.0736	CF 9 SMn 36	9 SMn 36	1.0736	S 300	-	-

CHEMICAL COMPOSITION (CAST ANALYSIS) (%)

C / max	Si / max	Mn	P / max	S
0,14	0,05	1,00÷1,50	0,11	0,34÷0,40

MECHANICAL PROPERTIES

Size mm	as Rolled and/or as Rolled + Turned (+SH)		Cold Drawn (+C)		
	Hardness HB*	R _m (MPa)	R _{p0,2} (MPa) min	R _m (MPa)	A5 (%) min
≥5 ≤10	-	380÷570**	440	510÷810	6
>10 ≤16	-	380÷570**	410	490÷760	7
>16 ≤40	112÷169	380÷570	375	460÷710	8
>40 ≤63	112÷169	370÷570	305	400÷650	9
>63 ≤100	107÷154	360÷520	245	360÷630	9

* For reference only **Values valid only for hot rolled products
For size <5 mm the mechanical properties may be agreed at the time of enquiry and order

WORKING TEMPERATURES RECOMMENDED

Operation	Hot forgings deformation	Normalizing	Soft annealing
°C	950÷1250	870÷910	650÷700