

STANDARD REFERENCE:  
 ASTM A29/A29M

### RODACCIAI REFERENCES AND COMPARABLE STANDARDS

EUROPE		ITALY	GERMANY		FRANCE	UK	USA
EN ISO 683-3: 2018 EN 10277-3: 2018		(UNI 4838-80)	(DIN 1651-88)		(NF A 35-561-92)	(BS 970 pt.3-91)	ASTM A 29
Grade	N°		Werkstoff	N°			
(11SMn30)	(1.0715)	(CF 9 SMn 28)	(9SMn28)	(1.0715)	(S 250)	(230M07)	1215

### CHEMICAL COMPOSITION (CAST ANALYSIS) (%)

C / max	Si / max	Mn	P / max	S
0,09	-	0,75÷1,05	0,04÷0,09	0,26÷0,35

### MECHANICAL PROPERTIES

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

\* Only for information

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

