

**STANDARD REFERENCE:**

UNI EN 10025-2: 2004 (Hot-rolled products) | UNI EN 10027-2: 2008 (Bright products)

**RODACCIAI REFERENCES AND COMPARABLE STANDARDS**

	EUROPE		ITALY	GERMANY		FRANCE	UK	USA
	UNI EN 10025: 2004 UNI EN 10277-2: 2008		(UNI 7070 - 72)	(DIN 17100-80)		(NF A 35-501-83)	(BS 4360 - 90)	ASTM A 29
	Grade	N°		Werkstoff	N°			
<b>RE 52 D</b>	S355J2 S355J2C	1.0577 1.0579	Fe 510 D	St 52 - 3	1.0570	E 36 - 4	50 D	1019

**CHEMICAL COMPOSITION (CAST ANALYSIS) (%)**

C / max	Si / max	Mn / max	P / max	S	Al
0,20	0,55	1,60	0,035	0,020÷0,035	0,020÷0,060

**MECHANICAL PROPERTIES - AS ROLLED CONDITION**

Size mm	R <sub>m</sub> (MPa)	R <sub>p 0,2</sub> (MPa)	A <sub>5</sub> (%) min	KV (J) +20°C (J) min
≤16	470 - 630	355	22	27
>16 ≤40	470 - 630	345	22	27
>40 ≤63	470 - 630	335	21	27
>63 ≤80	470 - 630	325	21	27
>80 ≤100	470 - 630	315	18	27
>100 ≤150	450 - 600	295	17	27

**MECHANICAL PROPERTIES - BRIGHT PRODUCTS CONDITION**

Size mm	as Rolled + Turned (+SH)		Cold Drawn (+C)		
	Hardness (HB)	R <sub>m</sub> (MPa)	R <sub>p 0,2</sub> (MPa) min	R <sub>m</sub> (MPa)	A <sub>5</sub> (%) min
≥5 ≤10	-	-	520	630÷950	6
>10 ≤16	-	-	450	580÷880	7
>16 ≤40	146÷187	470÷630	350	530÷850	8
>40 ≤63	146÷187	470÷630	335	500÷770	9
>63 ≤100	146÷187	470÷630	315	470÷740	9

**WORKING TEMPERATURES RECOMMENDED**

Operation	Hot forgings deformation	Soft annealing
°C	900÷1150	650÷700