

STANDARD REFERENCE:

EN 10025-2: 2004 (Hot-rolled products) | EN 10277: 2018 (Bright products)

RODACCIAI REFERENCES AND COMPARABLE STANDARDS

EUROPE		ITALY	GERMANY	FRANCE	UK	USA
EN 10025: 2004 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°		
S235JR S235JRC	1.0038 1.0122	Fe 360 B	RSt 37 - 2	1.0038	E 24 - 2	-

CHEMICAL COMPOSITION (CAST ANALYSIS) (%)

C / max	Mn / max	P / max*	S / max	N / max*	Cu / max
0,19	1,50	0,045	0,045	0,014	0,60

* for each reduction of 0,005% below the specified P maximum an increase of 0,001% N above specified maximum will be permitted up to a maximum of 0,012%

MECHANICAL PROPERTIES - AS ROLLED CONDITION

Size mm	R _m (MPa)	R _{p 0,2} (MPa)	A ₅ (%) min	KV (J) +20°C
≤16	360 - 510	235	26	27
>16 ≤40	360 - 510	225	26	27
>40 ≤63	360 - 510	215	25	27
>63 ≤80	360 - 510	215	24	27
>80 ≤100	360 - 510	215	24	27
>100 ≤150	350 - 500	195	22	27

MECHANICAL PROPERTIES - BRIGHT PRODUCTS CONDITION

Size mm	Turned (+SH)		Cold Drawn (+C)		
	Hardness HB	R _m (MPa)	R _{p 0,2} (MPa) min	R _m (MPa)	A (%) min
≥5 ≤10	-	-	355	470÷840	8
>10 ≤16	-	-	300	420÷770	9
>16 ≤40	107÷152	360÷510	260	390÷730	10
>40 ≤63	107÷152	360÷510	235	380÷670	11
>63 ≤100	107÷152	360÷510	215	360÷640	11

WORKING TEMPERATURES RECOMMENDED

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

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SPECIAL STEELS
FOR STRUCTURAL PRODUCTS
RE37
