

Quality	S275J0 (Fe 430 C)
According to standard	EN 10025-2: 2004
Number	1.0143

Chemical composition

C%	Si%	Mn%	P%	S%	N%	Cu%	
max		max	max	max	max	max	
0,18 ^{c)}		1,50	0,030	0,030	0,012 ^{a)}	0,40	Cast analysis
0,21 ^{c)}		1,60	0,040	0,040	0,014 ^{b)}	0,45	Product analysis

FN deoxidation method - rimming steel not admitted

^{c)} max 0.20 ladle analysis, max 0.22 product analysis for thickness > 150 mm

^{c)} for nominal thickness > 100 mm, C content to be agreed

^{a)} N max value is not applied if chemical composition shows total Al content of 0.020%

^{b)} N max value is not applied if chemical composition shows total Al content of 0.015%

Temperature °C

Hot-forming	Supply state	Soft annealing	Isothermal annealing	Temperature values are valid for analysis close to:		
1200-850	natural state	690 air		C%	Mn%	Si%
In some cases, the piece can be normalized and tempered or quenched and tempered				Pre-heating welding	Stress-relieving after welding	
Normalizing and tempering	Quenching and tempering	Stress-relieving	End quench hardenability	not required	slow cooling	
920 air	920 water	50° under the temperature of tempering		Ac1	Ac3	Ms
540-650 air	540-665 air					Mf

Mechanical properties

Hot-rolled EN 10025-2: 2004 **S275J0**

Testing at room temperature Kv 0 °C

size mm		R	size mm		ReH	size mm		A% L	A% T	HB
from	to	N/mm ²	over	to	N/mm ² min	over	to	min	min	for information
	3	430-580		16	275	3	40	23	21	128-172
3	100	410-560	16	40	265	40	63	22	20	122-162
100	150	400-540	40	63	255	63	100	21	19	119-158
150	250	380-540	63	80	245	100	150	19	19	110-158
			80	100	235	150	250	18	18	
			100	150	225	over	to	Kv 0 °C J min ^{a)}		
			150	200	215		150	27		
			200	250	205	150	250	27		

^{a)} values to be agreed for thickness > 100 mm (**normalization** is suggested)

Cold-drawn					Hot-rolled – Peeled- Reeled				
size mm		Testing at room temperature (longitudinal)			Testing at room temperature (longitudinal)				
from	to	R	Rp 0.2	A%	HB	R	Rp 0.2	A%	HB
		N/mm ²	N/mm ² min	min		N/mm ²	N/mm ² min	min	

No indications from reference standards

EUROPE EN	ITALY UNI	CHINA GB	GERMANY DIN	FRANCE AFNOR	U.K. B.S.	RUSSIA GOST	USA AISI/SAE
S275J0	Fe 430 C		St 44-3 U	E 28-3	43 C		