

Quality	S275J2	Structural Steel	<i>Technical sheet Lucefin Group rev. 2018</i>
According to standard	EN 10025-2: 2004		
Number	1.0145		

Chemical composition

C%	Si%	Mn%	P%	S%	N%	Cu%	
max		max	max	max		max	
0,18 ^{c)}	-	1,50	0,025	0,025	-	0,40	Cast analysis
0,21 ^{c)}	-	1,60	0,035	0,035	-	0,50	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

Temperature °C

Hot-forming	Supply state +U	Soft annealing +A	Isothermal annealing +I	Temperature values are valid for analysis close to:			
1200-850	natural state	690 air	-	C%	Mn%	Si%	
				0.16	0.70		
				Pre-heating welding		Stress-relieving after welding	
				not required		slow cooling	
Normalizing and tempering	Quenching and tempering	Stress-relieving +SR		Ac1	Ac3	Ms	Mf
920 air	920 water	50° under the temperature of tempering		-	-	-	-
540-650 air	540-665 air			-	-	-	-

Mechanical properties

Hot-rolled EN 10025-2: 2004 **S275J2** 1.0145

Testing at room temperature Kv -20 °C

size mm	R	ReH	A%	A%	Kv L -20 °C	HB	Modulo Elastico	
from to	N/mm ²	N/mm ² min	min (L)	min (T)	J min ^{d)} (L)	for inf.	GPa +20°C	
3	430-580	275	-	-	-	-	long.	tang.
3 16	410-560	275	23	21	27	122-162	200	77
16 40	410-560	265	23	21	27	122-162		
40 63	410-560	255	22	20	27	122-162		
63 80	410-560	245	21	19	27	122-162		
80 100	410-560	235	21	19	27	122-162		
100 150	400-540	225	19	19	27	119-158		
150 200	380-540	215	18	18	27	110-158		
200 250	380-540	205	18	18	27	110-158		
250 400	380-540	195	18	18	27	110-158	apply to flat products	

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

Cold-drawn

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

No indications from reference standards

Forged normalized UNI EN 10250-2: 2001

Testing at room temperature Kv -20 °C

size mm	R	Re	A%	A%	Kv -20 °C	Kv -20 °C	HB
from to	N/mm ² min	N/mm ² min	min (L)	min (T)	J min (L)	J min (T)	min

No indications are shown in the reference standards,

(please refer to the same values of quality S235J2G3 UNI EN 10250-2)

EUROPE	ITALY	CHINA	GERMANY	FRANCE	U.K.	RUSSIA	USA
EN	UNI	GB	DIN	AFNOR	B.S.	GOST	AISI/SAE
S275J2		Q275	1.0145			St4sp	