

Quality S275J0

According to Standard EN 10025 - 2 : 2004

Number 1.0143



Comparable Standards	German DIN	France AFNOR	Spain UNE	China GB	U.K. B.S.	Russia GOST	USA AISI - SAE	Japan JIS
	St44-3U	E28-3	AE275C	-	43C	-	-	SS 400

Chemical Analysis	C% max	Si% max	Mn% max	P% max	S% max	N% max	Cu% max
	0.18	-	1.50	0.03	0.03	0.012	0.55

**Hot Work and Heat Treatment Temperatures**

**Temperature °C**

Hot - Forming	Supply State +U	Soft Annealing +A	Isothermal Annealing +I	Normalising & Tempering	Quenching & Tempering QT	Stress-relieving +SR
1200 - 850	natural state	690 air		920 air	920 water	50° under the temperature of tempering
				540 - 650 air	540 - 665 air	

**Mechanical Properties at Room Temperature**

**Minimum Yield Strength R<sup>eH</sup>  
Mpa  
Nominal Thickness mm**

≤ 16	> 16 ≤ 40	> 40 ≤ 63	> 63 ≤ 80	> 80 ≤ 100	> 100 ≤ 150	> 150 ≤ 200	> 200 ≤ 250
275	265	255	245	235	225	215	205

**Tensile Strength R  
Mpa  
Nominal Thickness mm**

< 3	> 3 ≤ 100	> 100 ≤ 150	> 150 ≤ 250
430 to 580	410 to 560	400 to 540	380 to 540

**Minimum percentage elongation after fracture %**

	L = 80 mm. Normal thickness mm				L = 5.65 √S <sub>0</sub> . Nominal thickness mm					
	≤ 1	> 1 ≤ 1.5	> 1.5 ≤ 2	> 2 ≤ 2.5	> 2.5 < 3	> 3 ≤ 40	> 40 ≤ 63	> 63 ≤ 100	> 100 ≤ 150	> 150 ≤ 250
<b>l</b>	15	16	17	18	19	23	22	21	19	18
<b>t</b>	13	14	15	16	17	21	20	19	19	18