

**Equivalents:**

American: ASTM grade A283D

British: BS4360 grade 4313

German: DIN 17100 grade ST42-2

**Colour Code:**

S275JR+AR

**Chemical Composition % AS PER 50025/EN10025:**

GRADE	Max C Content For t IN MM			Mn Max	Si Max	P Max	S Max	Cu Max	Ni Max
	t ≤ 16	> 16 t ≤	t > 40						
S275JR+AR	0.21	0.21	0.22	1.50	-	0.035	0.035	0.550	0.012

**Carbon equivalent value formula to be used:**

$$CE = \frac{C+Mn}{6} + \frac{Cr+Mo+V}{5} + \frac{Ni+Cv}{5}$$

**Mechanical Properties:**

GRADE	Yield (Mpa) Min	Tensile (Mpa) Min	Charpy V-NOTCH Longitudinal	
	Strength at t = 16mm		Temp (° C)	Energy (J) t = 16mm
S275JR+AR	275	410/560	20	27

Note: Verification of the specified impact value is only carried out when agreed at the time of enquiry and order

**Characteristics:**

- Carbon steel
- Weldable

**Typical Applications:**

Structural steel works: bridge components, components for offshore structures  
Power plants

Mining and earth moving equipment  
Load-handling equipment  
Wind tower components

**Tolerances:**

Material 6mm and thicker is supplied with dimensional tolerances in accordance with EN10029. If not specified tolerances will be according to "Class A".

S - Symbol for structural steel  
JR - Symbol for 20° C temperature impact test  
JO - Symbol 0° C temperature impact test  
J2 - Symbol -20° C temperature impact test

Material produced in the hot strip mill is supplied with dimensional tolerances in accordance with EN10051.