

Material Grade: **S275**
 Material Condition(s): **Untreated / Normalised**
 Surface Finish: **As rolled / Bright turned**

Associated Standard: **BS EN 10025**

Description:

Readily weldable low carbon manganese steel with good impact resistance (also in sub-zero temperatures). This material is commonly supplied in the untreated or normalized condition and is available in several variations (denoted by additional letters and/or digits) which offer slight modifications of chemical composition and mechanical properties.
 Machinability of this material is similar to that of mild steel.

Typical applications: **Welded components for general engineering and construction**

Typical variations: **S275JR - increased carbon content, room temperature impact test only**
S275J0 - increased S & P contents, 0°C impact test
S275J2 - impact properties at -20°C

Conditions: **no designation or +AR - as rolled**
+N - normalised

1. STEELMAKING

	<u>C*</u>	<u>Mn</u>	<u>S</u>	<u>P</u>	<u>Cu</u>	<u>CEV*</u>
Min						
Max	0.20	1.5	0.030	0.030	0.55	0.42

(* differs with section thickness and grade variation)

2. TYPICAL MECHANICAL PROPERTIES

Test type			Tensile and hardness test (at room temperature)					Impact test (KV)			
			Yield (Re)	0.2 % proof	UTS (Rm)	Elong (A)	R of A (Z)	Hardness	Room Temp	0°C	-20°C
Variation	Sample dia	Unit	N/mm ²	N/mm ²	N/mm ²	%	%	HB	J	J	J
S275J2 +N	> 16 ≤ 40mm	Min	265		410	23					27
		Max			560						
S275J0 +N	> 200 ≤ 250mm	Min	205		380	18				27	
		Max			540						