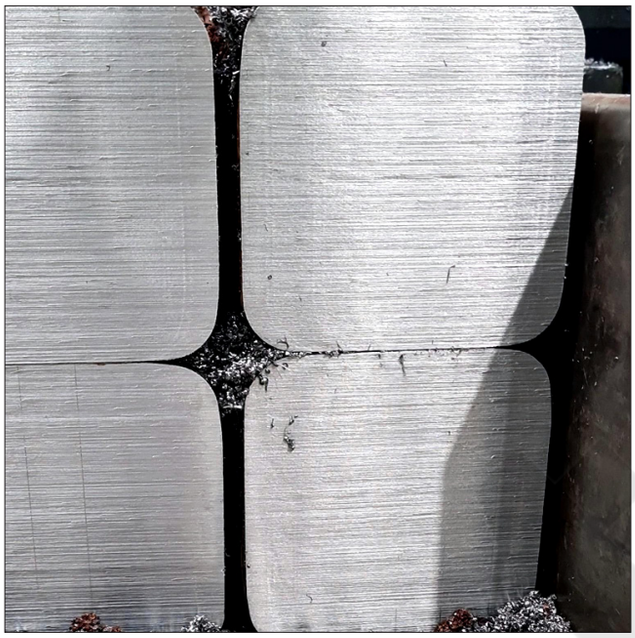
S355JR

LOW CARBON STRUCTURAL STEEL



S355JR is a grade of low-carbon steel commonly used in structural applications. It is part of the "S" family of steels, which includes S235, S275, and S355 grades.

The "JR" designation means that the material has been subjected to a Charpy V-notch impact test at 20°C and has a minimum impact strength of 27 Joules.

Chemical Composition (weight, %)

	C	Si	Mn	P	S	N	Cu
Max.	0.24	0.55	1.60	0.035	0.035	0.012	0.55

* Properties as per EN 10025-2

Strength:

S355JR steel has a high strength-to-weight ratio, making it suitable for use in load-bearing structures such as bridges, buildings, and offshore structures. It has a minimum yield strength of 355 N/mm^2, making it one of the strongest steel grades available.

Corrosion Resistance:

The corrosion resistance of **S355JR** steel is moderate, but it can be improved with proper surface treatment and coatings. The product contains small amounts of chromium, nickel, and copper, which provide some degree of corrosion resistance. However, these alloying elements are not present in large enough quantities to offer significant protection against corrosion in aggressive environments.

Protective coatings or surface treatments can be applied to improve the corrosion resistance of **S355JR** steel. These may include galvanising, painting, or powder coating the surface to provide a barrier against corrosion.

Welding:

The material has suitable welding and forming properties and is often used in fabrication projects. With a maximum carbon content of 0.22%, the steel has good weldability and is easy to work with

Benefits:

Overall, **S355JR** steel is a versatile and widely used material with good strength and durability for various structural applications. Benefits include:

- High strength-to-weight ratio
- Moderate corrosion resistance
- Good durability
- One of the strongest steel grades available

We stock **S355JR** in round and square bars of various diameters.

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