

655M13 (EN36)

HIGH TENSILE STEEL ALLOY

We are a division of the Smiths Metal Centres Limited Group

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655M13 is a low-alloy steel grade containing chromium, molybdenum, and nickel.

It is commonly used in the aerospace and defence industries for applications such as gears, shafts, and aircraft landing gear components. **655M13** has high strength, good ductility, and excellent toughness, making it suitable for high-stress environments. It is typically supplied in normalised and tempered condition and can be easily welded and machined.

Chemical Composition (weight, %)

	C	Si	Mn	Cr	Ni	
Min.	0.10	0.10	0.35	0.70	3.00	
Max.	0.16	0.40	0.60	1.00	3.75	

* Properties as per BS 970

Characteristics:

One of the benefits of **655M13** steel is its exceptional strength. With high tensile strength and yield strength, this steel can handle heavy loads and resist deformation, making it an ideal choice for applications that require strength and durability. Our product is also relatively cost-effective compared to other high-strength steel, making it an attractive option for manufacturers.

Toughness & Wear:

This material is also known for its toughness, which handles impacts and shock loading without breaking or cracking. With good wear resistance, the alloy resists abrasive wear, making it an excellent choice for applications requiring durability over time. Surface hardness is further increased by nitriding in an un-carburised state.

Availability:

We stock **655M13** in round and square bars.

Machinability:

The alloy offers excellent machinability and weldability when supplied in the annealed condition. However, when welded, the material should be stress relieved after cooling. Welding is not recommended in heat-treated or carburised condition. Turning, milling, drilling, and tapping are all suitable machinability options as long as the tool type, feeds and speeds are used under the machine manufacturer's recommendations.

Overall, if you're looking for steel that can deliver exceptional strength, toughness, and durability, **655M13** steel is a top choice.

Benefits:

- Exceptional strength
- Cost effective
- Excellent machinability and weldability
- Excellent toughness