

708A42 (EN19)

CHROMIUM MOLYBDENUM STEEL ALLOY

We are a division of the Smiths Metal Centres Limited Group

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708A42 is a type of alloy steel that contains a high percentage of chromium and molybdenum.

Our material is the equivalent of EN19 steel due to its similar composition and qualities. Our product finds common use in manufacturing machine parts, such as gears, shafts, and axles, due to its high strength, toughness, and wear resistance.

Chemical Composition (weight, %)

| | C | Mn | Cr | Mo |
|------|------|------|------|------|
| Min. | 0.40 | 0.75 | 0.90 | 0.15 |
| Max. | 0.45 | 1.00 | 1.20 | 0.25 |

* Properties as per BS 970

Overview:

708A42 has a relatively low hardness, which makes it easier to machine and work with than harder steels. This grade of steel can be heat-treated to improve its mechanical properties, to achieve a hardness of around 30-36 HRC, which is suitable for most industrial applications. It can be quenched and tempered to achieve a 50-55 HRC hardness, increasing strength and wear resistance. Applying these methods makes **708A42** steel ideal for applications where parts are subjected to constant friction and wear.

Improved Strength & Wear Resistance:

Compared to some other steels, **708A42** steel has a higher carbon content, providing greater strength and wear resistance. However, this higher carbon content can also make the steel more brittle and prone to cracking under certain conditions.

Benefits:

- Easier to machine
- Increased strength
- Increased wear resistance
- Ideal for applications involving frictional wear

Availability:

We stock **708A42** in round and square bars.

Use in Automotive:

The alloy steel is commonly used in the manufacture of gears and shafts for machinery and equipment. This material is also used in the manufacture of connecting rods in internal combustion engines, as it has high fatigue strength and can withstand high stresses and temperatures.

