BS S106 / 4S106D (MSRR 6001)

Typical Applications

Gas turbine parts

Jet engine components

High-temperature fasteners

Combustion chambers

BS S106 is the British aerospace equivalent of 722M24 / En40B and is a premium-grade material that has been tailored to meet the rigorous requirements of MSRR 6001 specification.

BS S106 is a 3% chrome-molybdenum nitriding steel which develops high hardness after heat treatment and combines exceptional corrosion resistance along with remarkable mechanical properties at elevated temperatures making it ideal for critical aerospace applications and demanding environments.

Technical specification

Related Specifications

BS S106

MSRR 6001

4S106D

Specific Gravity

7.84 g/cm3

Chemical Composition (WT %)

	Min	Max
C	0.20	0.28
Mn	0.40	0.70
Si	0.10	0.35
P	-	0.020
S	-	0.020

Cr	3	3.5
Mo	0.50	0.70
Ni		<0.30
Sn	-	0.030

Typical Mechanical Properties

Typical Hardness	Tensile Strength MPa: 930-1080 MPa	0.2% Proof Stress MPa: 740 min	Elongation: 13%

What is BS S106? +

This high-performance stainless-steel alloy is renowned for its premium complex combination of elements. BS S106 has been specifically tailored for aerospace applications requiring high strength alongside resistance to elevated temperatures. Unlike standard alloys, BS S106 delivers exceptional performance in demanding environments. Its unique composition ensures a microstructure capable of maintaining dimensional stability under extreme thermal cycling.

Typical Uses +

- Blades and Vane Turbines
- High Temperature Zone Fasteners
- Discs and Compressor Shafts
- Components of combustion chamber
- Parts of Exhaust System
- Gear Wheels
- Extruders

Need more information? ***Get in touch***

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