

MATERIAL GRADE DATA SHEET

# **ASTM A 193 Gr.B8S**

STAINLESS STEEL

CLASS 1D

**BOLTING MATERIAL FOR LOW TEMPERATURE SERVICE** 

ASTM A193 Gr.B8S Class 1D also known as Nitronic 60 stainless steel provides a significant lower cost alternative to fight wear and galling compared to cobalt & high nickel alloys. It uniforms sorrossion resistance exceeds type 304 in most media. Chloride pitting resistance is superior to type 316 and room temperture yield strength is twice that of 304 or 316. Nitronic 60 offers excellent high temperature oxidation resistance and low temperature impact resistance.

## **Chemical Properties**

С	Si	Mn	P	S	Cr	Ni
0.08 Max	1.00 Max	2.00 Max	0.045 Max	0.030 Max	18.0-20.0	8.0-11.0

#### **Mechanical Properties**

Yeild strength	Tensile strength	Elongation	Reduction	Hardness
Min 0.2% Mpa	Min Mpa	Min %	Min %	HRB Max
345	655	35	55	28

#### **Heat Treatment**

Carbide Solution Treated In The Finished Condition.

### **Equivalent Designation**

UNS S21800 AMS 5848 NITRONIC 60 Alloy 218 SS 218

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