

MATERIAL GRADE DATA SHEET

# **SA 193 Gr.B8N**



BOLTING MATERIAL FOR LOW TEMPERATURE SERVICE

ASTM A193 Gr.B8N Bolts are manufactured from AISI 304 Stainless Steel carbide solution treated with Strain Hardening. Stainless steel grade ASTM A 193 Gr.B8N is the most commonly used stainless steel. Stainless steel grade B8N has better corrosion resistance than grade 302, and is mostly non-magnetic in nature; however when cold worked it acquires a slightly magnetic quality.

### **Chemical Properties**

| С        | Si       | Mn       | P         | S         | Cr        | Ni       | N         |
|----------|----------|----------|-----------|-----------|-----------|----------|-----------|
|          |          |          |           |           |           |          |           |
| 0.08 Max | 1.00 Max | 2.00 Max | 0.045 Max | 0.030 Max | 18.0-20.0 | 8.0-11.0 | 0.10-0.16 |

## **Mechanical Properties**

| Yeild strength       | Tensile strength | Elongation | Reduction | Hardness |
|----------------------|------------------|------------|-----------|----------|
| Min 0.2% Mpa Min Mpa |                  | Min %      | Min %     | HRB Max  |
| 240                  | 550              | 30         | 40        | 223      |

### **Heat Treatment**

Carbide Solution Treated.

## **Equivalent Designation**

UNS \$30451 Din X5 CrNiN 19 9 KT Werkstoff.No. 1.4315 Jis 304 AFNOR

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