

# VISTAR<sup>®</sup> Super Austenitic Stainless Steel

## Technical Data



### Composition % Weight

| C (max) | Mn     | Si (max) | P (max) | S (max) | Cr          | Ni      | Mo        | N <sub>2</sub> |
|---------|--------|----------|---------|---------|-------------|---------|-----------|----------------|
| 0.03    | 9 - 12 | 0.7      | 0.015   | 0.015   | 25.5 - 27.5 | 16 - 19 | 1.5 - 4.5 | 0.65 - 0.80    |

### Mechanical Properties at Room Temperature & Low Temperature Impact Strength

| 0.2% Proof Stress (MPa) | UTS (MPa) | EL (%) | Impact Strength (Joules) |
|-------------------------|-----------|--------|--------------------------|
| 415                     | 680       | 35     | 55 @ -101 °C             |

### Elevated Temperature Tensile Properties (MPa)

| Temp   | R <sub>p0.2</sub> | R <sub>p1.0</sub> | R <sub>m</sub> |
|--------|-------------------|-------------------|----------------|
| 100 °C | 350               | 400               | 675            |
| 200 °C | 270               | 310               | 575            |
| 300 °C | 240               | 270               | 575            |
| 400 °C | 210               | 240               | 550            |

**VISTAR**

### Physical Properties

| Physical Properties           |      | Units                  |
|-------------------------------|------|------------------------|
| Density                       | 8    | g/cm <sup>3</sup>      |
| Modulus of Elasticity         | 190  | GPa                    |
| Linear Expansion 20 to 100 °C | 14.4 | x10 <sup>-6</sup> / °C |
| Thermal Conductivity          | 12   | W/m/ °C                |
| Thermal Capacity              | 450  | J/kg/ °C               |
| Electrical Resistivity        | 0.92 | μΩm <sup>-1</sup>      |

## Noel Village Integrity Castings

Noel Village Integrity Castings, Carr Hill, Balby, Doncaster, DN4 8DE, UK. Tel : (+44) (0) 1302 768 000  
Fax: (+44) (0) 1302 360 665 Email: sales@noelvillage.com Web: www.noelvillage.com