

HP Alloys Nitronic® 50 Austenitic Stainless, Level 1 Cold Worked

Category : Metal , Ferrous Metal , Heat Resisting , Stainless Steel , T S20000 Series Stainless Steel

Material Notes:

Cold Worked applies to tensile values and are for 0.25" to 4" diameter samples; other properties are typical of this alloy. Nitronic® 50 Stainless Steel provides a combination of corrosion resistance and strength not found in any other commercial material available in its price range. This austenitic stainless has corrosion resistance greater than that provided by Types 316 and 316L, plus approximately twice the yield strength at room temperature. In addition, Armco Nitronic 50 Stainless has very good mechanical properties at both elevated and sub-zero temperatures. And, unlike many austenitic stainless steels, Nitronic 50 does not become magnetic when cold worked. Data provided by High Performance Alloys, Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_HP-Alloys-Nitronic-50-Austenitic-Stainless-Level-1-Cold-Worked.php

| Physical Properties | Metric | English | Comments |
|---------------------|-----------|--------------------------|----------|
| Density | 7.88 g/cc | 0.285 lb/in ³ | |

| Mechanical Properties | Metric | English | Comments |
|----------------------------|-------------------------------|-----------------------------------|------------|
| Tensile Strength, Ultimate | >= 758 MPa | >= 110000 psi | |
| Tensile Strength, Yield | >= 621 MPa @Strain 0.200 % | >= 90100 psi @Strain 0.200 % | |
| Elongation at Break | >= 35 % | >= 35 % | |
| Reduction of Area | >= 55 % | >= 55 % | |
| Modulus of Elasticity | 193 GPa | 28000 ksi | In Tension |
| Charpy Impact | 156 J @Temperature 27.0 °C | 115 ft-lb @Temperature 80.6 °F | |

| Thermal Properties | Metric | English | Comments |
|--------------------|---|--|----------|
| CTE, linear | 16.2 µm/m-°C @Temperature 20.0 - 95.0 °C | 9.00 µin/in-°F @Temperature 68.0 - 203 °F | |

| Component Elements Properties | Metric | English | Comments |
|-------------------------------|--------|---------|------------|
| Chromium, Cr | 22 % | 22 % | |
| Iron, Fe | 58 % | 58 % | as balance |
| Manganese, Mn | 5.0 % | 5.0 % | |

| Molybdenum, Mo Component Elements Properties | 2.25 % Metric | 2.25 % English | Comments |
|---|------------------|-------------------|----------|
| Nickel, Ni | 12.5 % | 12.5 % | |
| Nitrogen, N | 0.30 % | 0.30 % | |
| Silicon, Si | <= 1.0 % | <= 1.0 % | |

| Electrical Properties | Metric | English | Comments |
|------------------------|-----------------|-----------------|----------|
| Electrical Resistivity | 0.000110 ohm-cm | 0.000110 ohm-cm | |

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China