

Special Metals INCOLOY® Alloy 925

Category : Metal , Nonferrous Metal , Nickel Alloy , Superalloy

Material Notes:

A precipitation-hardenable nickel-iron-chromium alloy with additions of molybdenum and copper. It combines the high strength of a precipitation-hardenable alloy with the excellent corrosion resistance of INCOLOY alloy 825. The alloy has outstanding resistance to general corrosion, pitting, crevice corrosion, and stress-corrosion cracking in many aqueous environments including those containing sulfides and chlorides. Used for surface and down-hole hardware in sour gas wells and for oil-production equipment. Standard product forms are round, flats, forging stock, pipe, tube, and wire. Data provided by the manufacturer, Special Metals.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Special-Metals-INCOLOY-Alloy-925.php

| Physical Properties | Metric | English | Comments |
|---------------------|-----------|--------------------------|----------|
| Density | 8.05 g/cc | 0.291 lb/in ³ | |

| Mechanical Properties | Metric | English | Comments |
|----------------------------|-------------------------------------|--------------------------------------|---|
| Tensile Strength, Ultimate | 970 MPa | 141000 psi | Precipitation Hardened prior to test |
| | @Temperature 550 °C | @Temperature 1020 °F | |
| | 1210 MPa | 175000 psi | |
| | @Temperature 23.0 °C | @Temperature 73.4 °F | |
| Tensile Strength, Yield | 810 MPa | 117000 psi | Precipitation Hardened. Value at room temperature |
| | @Strain 0.200 % | @Strain 0.200 % | |
| | 700 MPa | 102000 psi | Precipitation Hardened prior to test |
| | @Strain 0.200 %, Temperature 550 °C | @Strain 0.200 %, Temperature 1020 °F | |
| Elongation at Break | 24 % | 24 % | Precipitation Hardened |
| | 25 % | 25 % | |
| | @Temperature 550 °C | @Temperature 1020 °F | Precipitation Hardened prior to test. |

| Thermal Properties | Metric | English | Comments |
|------------------------|-----------------------------|-----------------------------|----------|
| CTE, linear | 13.2 Åµm/m-Å°C | 7.33 Åµin/in-Å°F | |
| | @Temperature 20.0 - 100 Å°C | @Temperature 68.0 - 212 Å°F | |
| Specific Heat Capacity | 0.435 J/g-Å°C | 0.104 BTU/lb-Å°F | |

| Melting Point Thermal Properties | 1311 - 1366 Å°C Metric | 2392 - 2491 Å°F English | Comments |
|-------------------------------------|---------------------------|----------------------------|----------|
| Solidus | 1311 Å°C | 2392 Å°F | |
| Liquidus | 1366 Å°C | 2491 Å°F | |

| Component Elements Properties | Metric | English | Comments |
|-------------------------------|---------|---------|----------|
| Aluminum, Al | 0.30 % | 0.30 % | |
| Carbon, C | 0.010 % | 0.010 % | |
| Chromium, Cr | 21 % | 21 % | |
| Copper, Cu | 1.8 % | 1.8 % | |
| Iron, Fe | 28 % | 28 % | |
| Molybdenum, Mo | 3.0 % | 3.0 % | |
| Nickel, Ni | 44 % | 44 % | |
| Titanium, Ti | 2.1 % | 2.1 % | |

| Electrical Properties | Metric | English | Comments |
|------------------------|-----------------|-----------------|----------------------------|
| Electrical Resistivity | 0.000117 ohm-cm | 0.000117 ohm-cm | |
| Magnetic Permeability | 1.001 | 1.001 | at 200 oersted (15.9 kA/m) |

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