

Lucas-Milhaupt HANDY HI-TEMP 548[®] Carbide Brazing Alloy

Category : Metal , Nonferrous Metal , Copper Alloy , Solder/Braze Alloy

Material Notes:

Applications: Handy Hi-Temp 548 is a modified nickel-silver filler metal primarily used to join tungsten carbide to steel. Brazing is often combined with heat treatment of the steel tool bits. The filler metal has good high temperature strength and toughness.

Characteristics: This filler metal exhibits excellent flow and wetting characteristics on tungsten carbides and tool steels, especially when induction brazed. The material also has good gap filling properties and plasticity at brazing temperature while being resistant to the joint cracking tendencies of the standard nickel-silver materials. For induction, torch or furnace brazing use Handy Hi-Temp M Flux or Handy Hi-Temp Boron Modified Flux. Information provided by Lucas-Milhaupt, Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Lucas-Milhaupt-HANDY-HI-TEMP-548-Carbide-Brazing-Alloy.php

| Physical Properties | Metric | English | Comments |
|---------------------|-----------|--------------------------|----------|
| Density | 8.36 g/cc | 0.302 lb/in ³ | |

| Mechanical Properties | Metric | English | Comments |
|-----------------------|---------------|-------------------|---|
| Shear Strength | 193 - 207 MPa | 28000 - 30000 psi | Tungsten Carbide/ SAE 8740 Steel lap joint. |

| Thermal Properties | Metric | English | Comments |
|--------------------|------------------------------|----------------------------|---------------|
| Melting Point | 879.4 - 918.3 [°] C | 1615 - 1685 [°] F | |
| Solidus | 879.4 [°] C | 1615 [°] F | Melting Point |
| Liquidus | 918.3 [°] C | 1685 [°] F | Flow Point |

| Component Elements Properties | Metric | English | Comments |
|-------------------------------|----------------|----------------|----------|
| Copper, Cu | 54 - 56 % | 54 - 56 % | |
| Manganese, Mn | 3.5 - 4.5 % | 3.5 - 4.5 % | |
| Nickel, Ni | 5.5 - 6.5 % | 5.5 - 6.5 % | |
| Other, total | <= 0.50 % | <= 0.50 % | |
| Silicon, Si | 0.010 - 0.40 % | 0.010 - 0.40 % | |
| Zinc, Zn | >= 32.1 % | >= 32.1 % | |

| Electrical Properties | Metric | English | Comments |
|------------------------|------------------|------------------|----------|
| Electrical Resistivity | 0.0000263 ohm-cm | 0.0000263 ohm-cm | |

| Processing Properties | Metric | English | Comments |
|------------------------|----------------|-----------------|---------------|
| Processing Temperature | 927 - 1040 Å°C | 1700 - 1900 Å°F | Brazing Range |

| Descriptive Properties | Value | Comments |
|------------------------|--------------|----------|
| Color | Light Yellow | |

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