SUPERIOR No. 21

MAGNESIUM BRAZING FLUX

➢ Powder flux can be used as supplied or mixed with water to form a paste.
➢ Meets AWS FB2-A Specification.
➢ Residues water-soluble.

DESCRIPTION

Superior No. 21 is a powder flux for brazing magnesium and magnesium-based alloys, with an active temperature range of 480°C – 620°C/900°F – 1,150°F. It promotes strong braze joints in magnesium alloys, without melting the substrate metals. The flux wets the joining surfaces thoroughly and prevents the entrapment of magnesium oxide inclusions in the joints.

APPLICATIONS

Superior No. 21 is used primarily with gas-oxygen torches, but works in select induction and furnace brazing applications of magnesium metal and its most common alloys.

Superior No. 21 is formulated for use with magnesium brazing filler alloys: AWS BMg1 (liquidus: 599°C/1110°F).

DIRECTIONS

Superior No. 21 is formulated for use in powder form or mixed with water to make a paste. Best results can be obtained by following these guidelines:

1. Base metals should be cleaned thoroughly to remove dirt, grease and other impurities.
2. Heat the end of filler metal rod and dip into flux, or sprinkle flux on work-piece.
3. At temperature, flux liquefies and flows into joints, removing surface oxide and impurities.
4. Continue heating until the filler metal melts and fills the joint, producing shiny fillets.
5. Flux residues are completely soluble in hot water.
6. Flux is hygroscopic. Store in plastic with desiccant bags away from moisture and heat.

SPECIFICATIONS

Superior No. 21 meets specification AWS FB2-A for magnesium brazing flux.
# PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Powder (100 Mesh)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>2.2 (Average)</td>
</tr>
<tr>
<td>Volatile content</td>
<td>&lt;0.5</td>
</tr>
<tr>
<td>Lower Explosion Limit</td>
<td>None</td>
</tr>
<tr>
<td>Freezing Effects</td>
<td>None</td>
</tr>
<tr>
<td>Humidity Effect</td>
<td>Hygroscopic</td>
</tr>
<tr>
<td>Active Temperature Range</td>
<td>480°C – 620°C/900°F – 1,150°F</td>
</tr>
</tbody>
</table>

**THIS PRODUCT IS RoHS COMPLIANT**

# SAFETY PRECAUTIONS

*Superior No. 21* contains chemicals that require this flux be used only in well-ventilated areas. Wear NIOSH approved gloves, goggles, and ventilation masks.

- Avoid contact with skin, eyes and clothing.
- Avoid breathing dust and fumes produced during soldering processes.
- In case of eye contact, flush eyes with water and call a physician immediately.

Store flux in cool, un-humid environment in a very tightly sealed container. Desiccant bags are recommended to prevent hygroscopic absorption of humidity into the flux.

*Superior No. 21* has a two (2) year shelf life when stored properly.

Refer to Material Safety Data Sheet (MSDS) for additional information.