INSTRUCTIONS FOR USE

1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

Belzona® 1161 is tolerant of surface contamination and can be applied directly to wet and oily surfaces, however it is recommended that the best possible surface preparation is carried out. As a minimum, the substrate must always be firm and free from loose corroded material, mill scale, dust, and any other loose debris.*

RECOMMENDED PROCEDURE
i) Blast clean the metal surface to achieve the following minimum standard of cleanliness:
   - ISO 8501-1 Sa 2 thorough blast cleaning
   - SSPC SP-6 commercial blast cleaning
   - Swedish Standard Sa 2 SIS 05 5900.
   or
ii) UHP Hydroblasting (2000 - 2500 bar) to remove previous coatings and expose original profile.
   or
iii) Power tool clean to achieve an SSPC-SP11 bare metal power tool cleaned surface.

It is important to remove contaminants such as salt from above water surfaces.

2. COMBINING THE REACTIVE COMPONENTS

Transfer the entire contents of the Base and Solidifier modules on to the Belzona® Working Surface. Mix thoroughly together to achieve a uniform material free of any streakiness.

1. MIXING AT LOW TEMPERATURES
To ease mixing when the material temperature is below 41°F (5°C), warm the Base and Solidifier modules until the contents attain a temperature of 68-77°F (20-25°C).

2. WORKING LIFE
From the commencement of mixing, Belzona® 1161 must be used within the times shown below.

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Working Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>41°F/5°C</td>
<td>32 min.</td>
</tr>
<tr>
<td>50°F/10°C</td>
<td>24 min.</td>
</tr>
<tr>
<td>68°F/20°C</td>
<td>16 min.</td>
</tr>
<tr>
<td>86°F/30°C</td>
<td>14 min.</td>
</tr>
<tr>
<td>104°F/40°C</td>
<td>12 min.</td>
</tr>
</tbody>
</table>

3. MIXING SMALL QUANTITIES
For mixing small quantities of Belzona® 1161 use:
- 2 parts Base to 1 part Solidifier by volume
- 4 parts Base to 1 part Solidifier by weight

4. VOLUME CAPACITY OF MIXED BELZONA® 1161
26.1 cu.in. (428 cm³) per kg.

3. APPLYING BELZONA® 1161
a) Apply the Belzona® 1161 directly on to the prepared surface with the plastic applicator or spatula provided.

b) Press down firmly to fill all cracks, remove entrapped air, displace water and ensure maximum contact with the surface.

c) Over cracks, gaps and holes, stipple in Belzona® 9341 (Reinforcement Tape).

d) Contour the Belzona® 1161 to the correct profile with the plastic applicator or alternatively, allow to cure and then machine down.

APPLICATION AT LOW TEMPERATURES
Belzona® 1161 should NOT be applied at temperatures below 41°F (5°C).

CLEANING
Mixing tools should be cleaned immediately after use with Belzona® 9111 or any other effective solvent e.g. Methyl ethyl ketone (MEK). Application tools should be cleaned using a suitable solvent such as Belzona® 9121, MEK, acetone or cellulose thinners.

4. COMPLETION OF THE MOLECULAR REACTION
Allow Belzona® 1161 to solidify as below before subjecting it to the conditions indicated.

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Machining and/or light loading</th>
<th>Full mechanical or thermal loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>41°F/5°C</td>
<td>6 hours</td>
<td>4 days</td>
</tr>
<tr>
<td>50°F/10°C</td>
<td>4 hours</td>
<td>2 days</td>
</tr>
<tr>
<td>68°F/20°C</td>
<td>2 hours</td>
<td>1 day</td>
</tr>
<tr>
<td>86°F/30°C</td>
<td>1 hour</td>
<td>16 hours</td>
</tr>
<tr>
<td>104°F/40°C</td>
<td>½ hour</td>
<td>12 hours</td>
</tr>
</tbody>
</table>

These times are for a thickness of approximately 0.25 inch (6 mm); they will be reduced for thicker sections and extended for thinner sections.

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5. APPLICATION OF A FURTHER LAYER OF BELZONA® 1161

When a further layer of Belzona® 1161 is required, this should be applied as soon as possible after the first layer.

Application of subsequent layers of Belzona® 1161 can be carried out up to 6 hours after the previous application without need of any surface treatment other than removal of contamination.

After the maximum overcoating time has elapsed, the solidified Belzona® 1161 must be roughened before applying further Belzona® 1161.