PRODUCT INFORMATION

ULTIFIL 3000-010

ULTIFIL 3000-010
2 PART POLYURETHANE
RESILIENT
LONG USABLE POT LIFE
LOW MIXED VISCOSITY

ULTIFIL 3000-010 TWO PART POLYURETHANE COMPOUND

GENERAL DESCRIPTION
Ultifil 3000-010 is a black, resilient, two-part polyurethane infill compound. The system has a low viscosity and is easily processed. Good bubble release features leave an aesthetically pleasing surface finish on the cured product. The resin exhibits good adhesion to cases and minimum pressure on inserts, together with excellent moisture resistance, electrical and mechanical properties.

APPLICATION
For the encapsulation, sealing and potting of electronic and electrical components.

SPECIFICATION

PROPERTIES OF THE BASE -
- Viscosity @ 25°C poise 35 - 45
- Specific gravity 1.27 - 1.33
- Appearance Black.

PROPERTIES OF THE HARDENER -
- Viscosity @ 25°C poise 1 - 2
- Specific gravity 1.20 - 1.26
- Appearance Brown.

PROPERTIES OF THE MIXTURE -
- Mix ratio base: hardener 3.8:1 pbv
  4:1 pbw
- Viscosity @ 25°C poise 16 - 22
- Specific gravity 1.24 - 1.30
- Usable life 500 grams mass 75 mins at room temp.

PACKAGING
5 kg kits.
26 kg kegs.
30.75 kg kegs.
WORKSHOP PRACTICE
Most problems occur with 2 part systems due to the failure to mix correctly. The following procedure is recommended:-
Stir the base component prior to mixing to ensure any settled filler is included. The stirring process should scrape the bottom and the sides of the container and be sufficient to ensure there are no dead areas of unmixed material but should also be a relatively slow process stirring a horizontal circular motion so that minimal air is included into the mix. If time permits this initial stir is made easier if the base component only is heated to 30-40°C and stirred some hour before the 2 components are mixed. Use of still warm base component will reduce the usable life of the mixture. The base and hardener can be measured out by weight, volume or by using all of the pre-weighed kit, but it should be noted the usable life of the mixture decreases as the weight of the mix increases. Ensure the base and hardener are mixed thoroughly using the scraping minimal air inclusion method described previously. This mixing process can take up to 4-5minutes, and it is recommended that, if the usable life allows, extra time is spent mixing at this stage where failure to mix is most frequent.

Water contamination of components, cases or the compound will cause problems of foaming on potted components. When using polyurethane compounds **WATER CONTAMINATION SHOULD BE AVOIDED.**

CURE SCHEDULE

<table>
<thead>
<tr>
<th>Component</th>
<th>Time</th>
<th>Conditions</th>
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<tbody>
<tr>
<td>500 grams mass hard</td>
<td>16 hrs</td>
<td>at room temp.</td>
</tr>
<tr>
<td>full</td>
<td>72 hrs</td>
<td>at room temp.</td>
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PROPERTIES OF CURED COMPOUND

- Shore A hardness: 80 - 90
- Elongation at break %: 55
- Water absorption 30 days mg: BS2782 20
- Thermal Conductivity W/M/K: 0.22
- Dielectric constant @ 1000 hz: BS2782 4.5
- Dielectric strength Kv/cm: BS2782 110
- Dissipation factor @ 1000 hz: BS2782 0.07
- Volume resistivity Log10 ohm: BS2782 > 14

STORAGE
Between 5°C and 30°C in sealed containers. Avoid contamination with moisture. Shelf life 12 months.

HEALTH & SAFETY
See relevant Material Safety Data Sheet. AEV Plc Issue No. 1 Date: 5/95

NOTE: Due to the introduction of improvements from time to time the right is reserved to supply products that may differ slightly from those illustrated or described in this publication.

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