Thermosetting adhesive sheet

P-EF11

1. Outline
P-EF11 is a type of thermosetting adhesive sheet matched with needs of the saving resource, VA rationalization and the working environment improvement. It can be used as substitution of the material that replaces the insulation varnish cloth and the liquid adhesive. P-EF11 is impregnated with thermosetting epoxy resin to the polyester non-woven base by solvent-free production process and makes sheeted with extremely resin-rich.

2. Construction

3. Features
1) Improve considerably compared to general liquid resin of use environment. (Especially effects on the human body and workability)
2) No foaming at the time of heat curing because it doesn’t contain a solvent.
3) No flagging during working because it is good conformability to have the flexibility adherent.
4) Excellent permeability because melt viscosity is low at the time of the heating.

4. Standard size

<table>
<thead>
<tr>
<th>Nominal thickness (mm)</th>
<th>Resin content (%)</th>
<th>Width (mm)</th>
<th>Length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.30</td>
<td>89</td>
<td>20~450</td>
<td>20</td>
</tr>
<tr>
<td>0.50</td>
<td>93</td>
<td>20~450</td>
<td>20</td>
</tr>
</tbody>
</table>

5. General properties

<table>
<thead>
<tr>
<th>Test item</th>
<th>Unit</th>
<th>Result</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness</td>
<td>-</td>
<td>0.30</td>
<td>0.50 micrometer</td>
</tr>
<tr>
<td>Gel time</td>
<td>sec</td>
<td>120</td>
<td>127 at 150°C</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>N/25mm</td>
<td>122</td>
<td>132 Tensile speed : 200mm/min</td>
</tr>
<tr>
<td>Elongation</td>
<td>%</td>
<td>23</td>
<td>25 Chuck distance : 150mm</td>
</tr>
</tbody>
</table>

6. Application
1) Band of Magnet wire/ Fixation of the terminal board
2) Decoration, protection and insulation of the coil

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Nitto Shinko Corporation
7. Curing conditions
Primary curing should be under the condition of 100°C×90min. or 120°C×60min. or 140°C×30min.

8. Storage condition
Keep the product at cold dark places (5°C or less) with sealing.

9. Properties
Show below a characteristic of P-EF11
1) Gel time - show the gel time by the hot plate method in fig. -1

![Fig.1 Gel time](image)

2) Adhesive strength
Show a hardening condition and relations of the shear adhesive strength in fig -2.
Test sample: P-EF11(0.5mm)
Test method: adherent – Fe plate 1.5mmx25mmx100mm

![Fig.2 Hardening condition and Shear adhesive strength](image)

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P-EF11 2/2
4005-24041-161013_E

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