Magnasoft 830TS hand modifier is a silicone material that is compatible with most solvent-based polyurethane resins used in top-coating of polyester and polyamide fabrics and nonwoven materials. Magnasoft 830TS hand modifier provides a silky-smooth feel with a “skin-like” finish on the fabrics and nonwoven materials coated with solvent-based PU resins that have been incorporated in the PU top coating bath.

In addition to enhancing the softness, Magnasoft 830TS hand modifier helps improve abrasion resistance and reduce tackiness on the surfaces of PU-coated fabrics and nonwoven materials associated with extended fabric storage life.

Magnasoft 830TS hand modifier is compatible with most dispersible solvent-based PU resin systems, such as; PU resin dispersion with DMF(dimethyformamide), and MEK(methyl ethyl ketone) solvents. Magnasoft 830TS hand modifier is commonly used for polyester and polyamide fabrics and nonwoven coatings.

**Key Features and Typical Benefits**

- Provides silky-smooth dry to touch feel
- Helps reduce tackiness and improve abrasion resistance on the surface of PU-coated fabrics and nonwovens
- Virtually no yellowing and no discoloration of fabric
- No impact on breathable waterproofing of PU-coated fabrics and nonwoven materials
- Compatible and dispersible with no agglomeration in solvent-based PU resin/DMF (or MEK) bath
- Low use level
- Manufactured to be APEO-free

**Potential Applications**

Magnasoft 830TS hand modifier can be used for multiple performance features, such as; topical hand improvement, abrasion resistance and non-tackiness on the surface of polyester and polyamide fabrics and nonwoven materials with solvent-based polyurethane resins that impart breathable or non-breathable waterproofing.

Solvent-based PU-coated polyester or nylon is typically used for two different applications.

- Outdoor garments and uniforms requiring breathable waterproofing; or
- Synthetic leather used for interior furniture and car sheeting requiring breathable water-resistance

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**Typical Physical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>–</td>
<td>White powder</td>
</tr>
<tr>
<td>pH</td>
<td>–</td>
<td>7</td>
</tr>
<tr>
<td>Average Particle Size</td>
<td>μm</td>
<td>4-7</td>
</tr>
<tr>
<td>Specific Gravity (25 °C)</td>
<td>g/cm³</td>
<td>1.3</td>
</tr>
<tr>
<td>Specific Surface Area</td>
<td>m²/g</td>
<td>20-30</td>
</tr>
</tbody>
</table>

Typical properties are average data and are not to be used as or to develop specifications.

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General Considerations for Use

A typical wet process of solvent-based PU coatings is shown below (dry processes for solvent-based PU coating omits the step of coagulation in a water bath). Magnasoft® 830TS hand modifier should be applied only in the top-coating (i.e., skin-coating) step in both wet and dry processes, as it may impact the adhesion if used in the base-coating (i.e., adhesion coating).

![Diagram of coating process]

The optimum use of Magnasoft 830TS hand modifier is subject to the type of fabric and softness required, but 0.3~0.6% Magnasoft 830TS hand modifier is typically recommended. An example of top coating bath formulation is:

<table>
<thead>
<tr>
<th>Material</th>
<th>% wt.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>PU resin</td>
<td>97</td>
<td>Solvent-based PU resin for top coating</td>
</tr>
<tr>
<td>DMF solvent</td>
<td>2</td>
<td>Alternatively MEK</td>
</tr>
<tr>
<td>Magnasoft 830TS hand modifier</td>
<td>0.5</td>
<td>Silicone powder for hand modifier</td>
</tr>
<tr>
<td>Silwet® L-7500 silicone</td>
<td>0.5</td>
<td>Leveling &amp; wetting agent</td>
</tr>
</tbody>
</table>

Product formulations are included as illustrative examples only. Momentive makes no representation or warranty of any kind with respect to any such formulations, including, without limitation, concerning the efficacy or safety of any product manufactured using such formulations.

Magnasoft 830TS hand modifier may be considered for PUD (Polyurethane Dispersion) coating, as well. However, the compatibility and dispersibility of Magnasoft 830TS hand modifier in PUD bath should be tested in advance.

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