One-component systems based on SUPRASEC® 2413 / SUPRASEC® 2416 / SUPRASEC® 2451 MDI

SUPRASEC® 2413 and SUPRASEC® 2416 primers have fast-curing properties, even at lower temperatures. Their low viscosities allow an excellent penetration in porous substrates such as concrete. They also have film-forming characteristics that enable use as a membrane coating. Typically, one layer will seal the substrate, but for highly porous substrates or to make the substrate damp proof, two or three layers are recommended. Foaming problems can be avoided by not exceeding the advised coverage rate of max. 0.150 kg/m² for each applied layer.

SUPRASEC® 2451 flexible primer technology is designed for use in a one-component system and displays a good wetting of a broad range of materials to offer a single solution for different substrates. This primer can accommodate expansion and shrinkage changes that occur following variations in temperature, substrate moisture or load. Typical application areas include loading docks and industrial flooring (concrete/steel) and concrete-asphalt overlap zones. Longer overcoat times on non-porous substrates (e.g. steel) can be shortened by catalysis.

Two-component systems based on SUPRASEC® 9584

SUPRASEC® 9584 primer technology is designed for use in a two-component system and is formulated to react with modified castor oils (Albodur types, Alberdingk-Boley) on a one-to-one volume ratio. Work time and cure time can be easily adjusted by catalysis of the resin blend. Its extremely low viscosity also allows deep penetration into porous substrates, resulting in strengthening by chemical crosslinking. A two-component system based on SUPRASEC® 9584 technology can be applied in industrial flooring, concrete, steel and wood priming. The system has shown excellent adhesion to a variety of substrates under severe conditions (e.g. damp concrete).
Huntsman SUPRASEC® MDI-based primers offer two high-performance solutions for your coatings needs. As one of the world’s leading producers of modified diphenylmethane diisocyanate (MDI), Huntsman offers MDI-based polyurethane primers that can be used as a one-component moisture cure and a two-component primer. Primarily developed for priming porous substrates; such as concrete and wood, SUPRASEC® MDI-based primers also can be applied for non-porous substrates, such as steel, asphalt, ceramics and rubber. They ensure an excellent adhesion to the substrate in preparation for a newly applied flooringcoatings’ protective system. The primers, which are 100% solids, eliminate volatile organic compound (VOC) emissions, therefore addressing VOC regulations.

Huntsman SUPRASEC® MDI-based primers are available for use in a wide variety of applications, including polyurethane floor coatings for industrial or sport floors and car park decks. They can also be used in combination with polyurea coatings for bridge decks, roof membranes, asphalt and concrete priming. Overall, these technologies aid in the preservation and re-habilitation of existing structures, prolonging the lifetime of concrete and metal products.

KEY BENEFITS:

**EXCELLENT ADHESION TO A VARIETY OF SUBSTRATES**

100% SOLIDS, ELIMINATING VOC EMISSIONS

**FAST APPLICATION TIME AND RECOAT WINDOW**

EASY APPLICATION DUE TO LOW VISCOSITY, RESULTING IN LOWER CONSUMPTION

**PRESERVATION AND RE-HABILITATION OF EXISTING STRUCTURES TO PROLONG THE LIFE OF CONCRETE, METAL AND WOOD PRODUCTS**

### APPLICATION

Huntsman SUPRASEC® MDI-based primers are easy to apply and offer versatility and feasibility in applications. Prior to application, the surface must be clean and free from dirt, grease and dust. The primer can be applied straight from the container by brush or roller. The product should be applied in an even and uniform manner, making sure recesses and edges are thoroughly coated/primed.

### INTRODUCTION

Huntsman SUPRASEC® MDI-based primers offer two high-performance solutions for your coatings needs. As one of the world’s leading producers of modified diphenylmethane diisocyanate (MDI), Huntsman offers MDI-based polyurethane primers that can be used as a one-component moisture cure and a two-component primer. Primarily developed for priming porous substrates; such as concrete and wood, SUPRASEC® MDI-based primers also can be applied for non-porous substrates, such as steel, asphalt, ceramics and rubber. They ensure an excellent adhesion to the substrate in preparation for a newly applied flooringcoatings’ protective system. The primers, which are 100% solids, eliminate volatile organic compound (VOC) emissions, therefore addressing VOC regulations.

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### RECOMMENDED COVERAGE RATES

The recommended coverage rates for different substrates are as follows:

- **Concrete Substrate**: 0.10 - 0.15 kg/m²
- **Steel Substrate**: 0.05 - 0.15 kg/m²

### PUSH-OFF ADHESION VALUES

The pull-off adhesion values for different substrates are as follows:

- **Concrete Substrate**: ≥ 4.0 MPa
- **Steel Substrate**: ≥ 15 MPa

### SOLLID CONTENT

The solid content for SUPRASEC® MDI-based primers is as follows:

- **Concrete Substrate**: 100%
- **Steel Substrate**: 100%

### SPECIFIC GRAVITY

The specific gravity for SUPRASEC® MDI-based primers is as follows:

- **Concrete Substrate**: 1.17 g/ml
- **Steel Substrate**: 1.16 g/ml

### SOLIDS CONTENT

The solids content for SUPRASEC® MDI-based primers is as follows:

- **Concrete Substrate**: 100%
- **Steel Substrate**: 100%

### OPEN TIME

The open time for SUPRASEC® MDI-based primers is as follows:

- **Concrete Substrate**: 7 hrs 24 min
- **Steel Substrate**: 7 hrs 11 min

### MANDRELL BENDING TEST

The mandrell bending test results for SUPRASEC® MDI-based primers are as follows:

- **Concrete Substrate**: > 32 mm
- **Steel Substrate**: > 32 mm

### CONCRETE SUBSTRATE

<table>
<thead>
<tr>
<th>Properties</th>
<th>Supreme® 2413</th>
<th>Supreme® 2416</th>
<th>Supreme® 2451</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pull-off Adhesion Value (MPa)</td>
<td>≥ 4.0</td>
<td>≥ 4.0</td>
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<tr>
<td>Recommended Overcoat Window @ 20 °C Maximum (kg/m²)</td>
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<td>Concrete</td>
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<tr>
<td>Recommended Coverage Rate (kg/m²)</td>
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<td>Pull-off Adhesion Value (MPa)</td>
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<td>Concrete</td>
<td>Concrete</td>
</tr>
<tr>
<td>Recommended Overcoat Window @ 20 °C Minimum (kg/m²)</td>
<td>Concrete</td>
<td>Concrete</td>
<td>Concrete</td>
</tr>
<tr>
<td>Recommended Coverage Rate (kg/m²)</td>
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<td>0.05 - 0.10</td>
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</tbody>
</table>

### STEEL SUBSTRATE

<table>
<thead>
<tr>
<th>Properties</th>
<th>Supreme® 2413</th>
<th>Supreme® 2416</th>
<th>Supreme® 2451</th>
</tr>
</thead>
<tbody>
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<td>≥ 15</td>
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<td>Concrete</td>
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<tr>
<td>Recommended Coverage Rate (kg/m²)</td>
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<td>0.10 - 0.15</td>
<td>0.10 - 0.15</td>
</tr>
<tr>
<td>Pull-off Adhesion Value (MPa)</td>
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<td>Concrete</td>
<td>Concrete</td>
</tr>
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<td>Concrete</td>
</tr>
<tr>
<td>Recommended Coverage Rate (kg/m²)</td>
<td>0.05 - 0.15</td>
<td>0.05 - 0.15</td>
<td>0.05 - 0.10</td>
</tr>
</tbody>
</table>

* Measured on glass with BK dry time recorder
** Measured at 0.15 mm film thickness
*** Versus ALBODUR 912

* (20 °C 50% RH)