

## QUICKSEAL

## PP 350 PURE POLYUREA

### 1. DESCRIPTION

**QuickSeal PP 350** is a spray applied, instant curing flexible membrane that can be built to any thickness in one application. **QuickSeal PP 350** sits at the top of our QuickSeal range of waterproofing and containment membranes. Due to its unique chemistry it can be applied in virtually any environmental conditions. Very cold, very hot or even very humid environments will not negatively impact on the curing time or physical performance of **QuickSeal PP 350**.

**QuickSeal PP 350** provides a flexible, seamless, hard wearing substrate protection solution for a wide range of substrates. Its rapid spray application and instant curing characteristics enable shorter shut down times than traditional glue in place rubber membranes or fix in place jointed panel products.

**QuickSeal PP 350** is specially formulated and designed for different options of application techniques, which allows to apply this material by plural component hot spray high pressure or with cold spray low pressure machines like VIP's LP-2. So therefore the operator can select the adequate application technique for the specific job and project size.

### 2. FEATURES

|   |                                                                                                |
|---|------------------------------------------------------------------------------------------------|
| ✓ | Can be applied even under extreme climatic conditions. Hot, cold and humid conditions          |
| ✓ | Good elongation at break.                                                                      |
| ✓ | Good tensile strength.                                                                         |
| ✓ | <b>Seamless Waterproofing and liquid containment.</b> No welding of joints – totally seamless. |
| ✓ | Seamless application and seamless finish. No welded joints or glued seams.                     |
| ✓ | Excellent adhesion to concrete, steel, aluminum, plastics, fibers, wood, foam etc.             |
| ✓ | Can be applied across multiple substrates in the same application process.                     |
| ✓ | Remains flexible under a wide range of climatic conditions.                                    |
| ✓ | Rapid application to any thickness and very fast cure results in faster turn around times.     |
| ✓ | Can build to any thickness in one application. Does NOT require multiple coats.                |
| ✓ | 100% solids, VOC-free, contains zero solvents                                                  |

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## 3. TYPICAL USES

- ✓ Large scale **Waterproofing** for Commercial, Industrial & manufacturing facilities.
- ✓ Sealing and substrate protection. – Plant rooms, trafficable roof decks.
- ✓ Waterproofing and substrate protection for areas exposed to high wind abrasion.
- ✓ Waterproofing of water features, pools and ponds with high levels of residual substrate moisture.
- ✓ Under concrete screed waterproofing of large scale podium decks where residual moisture exists.
- ✓ Bridge, street and tunnel waterproofing particularly in high moisture environments.
- ✓ Lining of non-potable water tanks, waste water tanks.
- ✓ Loading docks and access ramps.
- ✓ For all waterproofing containment applications where there are no aggressive chemicals and or abrasive forces. For aggressive chemicals and / or high abrasion and impact loads please refer to our **QuickSpray Industrial** and **QuickSpray Supreme** range of products.

| 4. PROCESSING PROPERTIES                           | DATA                                                                           |
|----------------------------------------------------|--------------------------------------------------------------------------------|
| Mixing ratio of Comp. A to Comp. B                 | 1 : 1 by volume                                                                |
| Material consumption [kg/m <sup>2</sup> /1mm]      | Approx. 1,0                                                                    |
| Recommended thickness [mm]                         | Minimum: 1mm on steel                      Max: unlimited<br>1.5mm on concrete |
| Gel time at 20°C [sec.]                            | 5 - 10 (dependent on ambient and substrate temperature)                        |
| Tack Free-Time at 20°C [sec.]                      | 15 - 30 (dependent on ambient and substrate temperature)                       |
| Over coat window [h]                               | 0 – 10 hours (without prep and priming)                                        |
| Curing/loading after [h]                           | Walkable: 1              Mechanical: 2              Chemical: 12-24            |
| Temperature range for application (ambience) [°C]  | -10 - +50                                                                      |
| Temperature range for application (substrate) [°C] | -10 - +50                                                                      |
| Material Temperature (Preconditioning) [°C]        | 25 – 30                                                                        |
| Material Temperature (Spraying) [°C]               | 70-80                                                                          |
| Maximal relative air humidity for application [%]  | 98                                                                             |
| Pay attention to the dew point limit               | min. 3K > DP (dew point)                                                       |

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| 5. PHYSICAL PROPERTIES        | DATA                             |                                                                                                     |
|-------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------|
| Chemical Base                 | -                                | Comp. A: MDI-Prepolymer<br>Comp. B: Polyetheramine-Mixture                                          |
| VOC-content                   | DIN EN ISO 11890-1 / ASTM D-1259 | 0%                                                                                                  |
| Solids content                | DIN EN 827 / ASTM D-2697         | 100%                                                                                                |
| Colour                        | -                                | Natural colour is a straw / brownish colour.<br>Un-pigmented.                                       |
| Viscosity [mPa*s] @ 25°C      | DIN EN ISO 2884-2 / ASTM D-4878  | Comp. A: 300-1000      Comp B: 600 – 1.350                                                          |
| Density [g/cm³] @ 20°C        | DIN EN ISO 2811-1 / ASTM D-1217  | Comp. A: 1,09 – 1,13      Comp. B: 0,98 – 1,02                                                      |
| Density [g/cm³]               | EN ISO 1183 / ASTM D-792         | 1,02 ± 0,02                                                                                         |
| Tensile strength [MPa]        | ISO 37-2005 / ASTM D-638         | ≥ 17      (LP-2: 12,2)                                                                              |
| Modul [MPa]                   | IISO 37-2005 / ASTM D-638        | 100% Elongation: ≥ 8      (LP-2: 7,5)<br>300% Elongation: 13                                        |
| Elongation at break [%]       | ISO 37-2005 / ASTM D-638         | 300-350      (LP-2: 200 - 250)                                                                      |
| Hardness [Shore D]            | ISO 868-2003 / ASTM D-2240       | 45 ± 5      (LP-2: 37 ± 5)                                                                          |
| Rebound resilience [%]        | ISO 4662 / ASTM                  | ≥ 32      (LP-2: ≥ 33)                                                                              |
| Tear growth resistance [N/mm] | ISO 34-1 method A                | ≥ 15      (LP-2: ≥ 17)                                                                              |
| Volume abrasion [mm³]         | DIN ISO 4649                     | ≤ 250                                                                                               |
| Taber Abrasion [mg]           | ASTM D-4060                      | < 8 (Wheel CS17 / 1.000g / 1000 Cycles)<br>< 80 (Wheel H18 / 1.000g / 1000 Cycles)                  |
| Peel off strength [N/mm]      | ISO 813 / ASTM                   | Concrete: ≥ 4      Steel: ≥ 8                                                                       |
| Pull off strength [N/mm²]     | DIN EN ISO 4624 / ASTM D-4541    | Concrete: ≥ 1.5      Steel: ≥ 5                                                                     |
| Max. Process temp. [°C]       | ISO 11346 / ASTM D-2485          | Wet: 45    Dry: 90    Peak temperature dry: 120                                                     |
| Min. Process temp. [°C]       | ISO 11346 / ASTM D-2485          | - 40                                                                                                |
| Heat Conductivity [W/m*K]     | -                                | 0.245                                                                                               |
| Sound absorption              | -                                | > 10 dB (A)                                                                                         |
| Surface resistance [Ohm]      | DIN IEC 60167                    | ≥ 1,0*10 <sup>11</sup>                                                                              |
| Volume resistance [Ohm]       | DIN IEC 60093                    | ≥ 1,0*10 <sup>11</sup>                                                                              |
| Storage conditions [°C]       | DIN EN 12701                     | 10 – 30 (in closed original drums, stored at dry and well ventilated place; do not allow to freeze) |
| Shelf life                    | -                                | Approximately 12 months                                                                             |

### 6. APPLICATION NOTES

The gel times and tack free times depend on the surrounding climatic conditions and the temperature of the substrate, e.g. ambient temperature, substrate temperature, relative humidity and ventilation etc.

Therefore the data specified above can only be used as a guide.

Aromatic Polyurea Coating Systems are UV-stable but are not colour stable. The cured coating system may exhibit discoloration when exposed to sunlight. **This does not influence the physical properties of the material.**

\* VIP recommends that in all applications involving chemicals a pre-test of the linings suitability in the customer's application is conducted. Consult with VIP Technical Team.

### 7. FORM OF DELIVERY

**Please see our price list for respective packaging units.**

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and testing, to determine the suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. These products require specialized equipment and skills to apply. It is the purchaser's responsibility to ensure that they have the necessary equipment, skills and experience to apply these products. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Technical and application information is provided for the purpose of establishing a general profile of the material and application parameters. Test performance results were obtained in a controlled environment and VIP GmbH makes no claim that these tests or any other tests can be accurately reproduced in all environments.

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Version: July 2019