

QuickSeal LP 90

1. Characteristics:

QuickSeal LP 90 is a modified polyurea elastomer especially designed for easy application in a wide range of climatic conditions. **QuickSeal LP 90** has a shore A hardness of 90 making it ideal for light commercial applications where abrasion and impact are considerations. **QuickSeal LP 90** is a 100% solids product that contains no VOC's or solvents. Designed to be sprayed through VIP's proprietary low pressure spray machine **QuickSeal LP 90** is an economical lining for a wide variety of applications requiring a robust long lasting, flexible water tight membrane.

2. Features:

- **QuickSeal LP 90 the economical alternative to High Pressure, hot spray systems.**
- **Applied using VIP Low Pressure Proportioner, 240 volt cold spray application equipment.**
- Fast reactivity and cure times even in less than ideal climatic conditions.
- Spray applied – seamless application. No joins.
- Can be applied across multiple substrate types in one application.
- Fast return to service time > long life-cycle > maintenance free > significant savings
- Excellent abrasion resistance for automotive and light commercial applications.
- Excellent adhesion on concrete, steel, aluminium, wood, foam etc.
- Good resistance to most standard chemicals, cleaners, fuels and oils.
- Can build to any thickness in one application.
- Excellent vibration and noise absorption capabilities.
- High impact & abrasion resistance whilst still maintaining flexibility.
- 100% solids, VOC-free, no solvents
- Weather-proof and saltwater resistant
- Excellent thermal stability -20C to 100C

3. Typical Uses:

- Roof top waterproofing – green roofs.
- Wet area waterproofing, box gutters, podium decks, retaining walls.
- Truck Bed linings.
- Floors of light trucks and commercial vehicles.
- Mobile homes and caravan roofs.
- Internal linings for Prisoner transport vehicles
- Transportable market stalls – floors and wet areas.
- Internal washable linings for food vans, ambulances, military vehicles.
- Toilets and shower areas in camping grounds, prisons, sport grounds, apartment complexes etc.
- Infrastructure protection – pylons, power poles, secondary containment linings.
- Water tank linings.
- Industrial floors, access ramps, service lift floors

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POLYUREA

| 4. Processing properties: | Data | | |
|--|--|--------------------|-----------------|
| Mixing ratio of Comp. A to Comp. B | 1 : 1 by volume | | |
| Material consumption [kg/m ² /1mm] | Approx. 1,0 kg | | |
| Recommended thickness [mm] | Minimum: 2 | Maximum: unlimited | |
| Gel time at 20°C [sec.] | Approx. 20 seconds (dependent on the temperature of the substrate) | | |
| Tack Free-Time at 20°C [sec.] | 40 – 60 seconds (dependent on the ambient temperature) | | |
| Over coat cycle [h] | 0 – 12 (without any pre-treatment) | | |
| Curing/loading after [h] | Walkable: 1 | Mechanical: 2-4 | Chemical: 12-24 |
| Temperature range for application (ambient) [°C] | 10 - +40 Optimal 15 – 30C | | |
| Temperature range for application (substrate) [°C] | 10 - +40 | | |
| Material Temperature (Preconditioning) [°C] | 25 – 30 optimum | | |
| Material Temperature (Spraying) [°C] | 15 – 35 optimum | | |
| Maximal relative air humidity for application [%] | 80 – 85% | | |
| Pay attention to the dew point limit | min. 3K > DP (dew point) | | |

| 5. Physical Properties: | | Data | | |
|--|----------------------------------|--|----------------------|---------------------------|
| Chemical Base | - | Comp. A: MDI-Prepolymer Comp. B: Polyetheramine-polyol-Mixture | | |
| VOC-content | DIN EN ISO 11890-1 / ASTM D-1259 | 0% | | |
| Solids content | DIN EN 827 / ASTM D-2697 | 100% | | |
| Colour | - | Straw colour un-pigmented | | |
| Viscosity [mPa*s] @ 25°C | DIN EN ISO 2884-2 / ASTM D-4878 | Comp. A: 500 - 900 | Comp B: 650 – 950 | |
| Density [g/cm ³] @ 20°C | DIN EN ISO 2811-1 / ASTM D-1217 | Comp. A: 1,09 – 1,13 | Comp. B: 0,98 – 1,02 | |
| Density [g/cm ³] | EN ISO 1183 / ASTM D-792 | 1,00 – 1,04 | | |
| Tensile strength [MPa] | ISO 37-2005 / ASTM D-638 | ≥ 10 | | |
| Modul [MPa] | ISO 37-2005 / ASTM D-638 | 100% Elongation: ≥ 5 | 300% Elongation: - | |
| Elongation at break [%] | ISO 37-2005 / ASTM D-638 | ≥ 250 | | |
| Hardness [Shore A] | ISO 868-2003 / ASTM D-2240 | 90 ± 5 | | |
| Rebound resilience [%] | ISO 4662 / ASTM | ≥ 23 | | |
| Tear growth resistance[N/mm] | ISO 34-1 method A | ≥ 8 | | |
| Volume abrasion [mm ³] | DIN ISO 4649 | ≤ 350 | | |
| Taber Abrasion [mg] | ASTM D-4060 | 8 (Wheel CS17 / 1.000g / 1000 Cycles) 95 (Wheel H18 / 1.000g / 1000 Cycles) | | |
| Peel off strength [N/mm] | ISO 813 / ASTM | Concrete: ≥ 4 | Steel: ≥ 8 | |
| Pull off strength [N/mm ²] | DIN EN ISO 4624 / ASTM D-4541 | Concrete: ≥ 1,5 | Steel: ≥ 6 | |
| Max. Process temp. [°C] | ISO 11346 / ASTM D-3185 | Wet: 40 | Dry: 75 | Peak temperature dry: 100 |

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| 5. Physical Properties: | | Data |
|--------------------------------|---------------------------------|---|
| Water absorption [%] | ASTM D-570 | ≥ 1.4 |
| Heat Conductivity [W/m*K] | - | 0,245 |
| Surface resistance [Ohm] | DIN IEC 60167 | ≥ 1,0*10 ¹¹ |
| Volume resistance [Ohm] | DIN IEC 60093 / ASTM D - 257 | ≥ 1,0*10 ¹¹ |
| Storage conditions [°C] | DIN EN 12701 / ASTM | 10 – 30 C (in closed original drums, stored at dry and well ventilated place; beware of freezing) |
| Shelf life | - | Approximately 12 months |

*) All datas measured at 25C @ 50%rH. Meanderings at different ambience- and processing parameters have to be taken into account.

6. Application Notes:

The drying times depend on the climate and environmental influences, e.g. ambient temperature, substrate temperature, relative humidity and ventilation etc.

Therefore the times specified can only be used as guidelines. The exact times have to be determined by testing on site.

*Aromatic Coating Systems are UV-stable but are **not colour stable**. The cured coating system may exhibit discoloration when exposed to sunlight.*

VIP recommends that in applications where QuickCoat LP 90 will be exposed to high levels of UV (Such as a roof top) it should be top coated with a VIP top coat to stop surface chalking and discolouration.

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7. Form of delivery:

| Product name | Unit | Ref.-No. |
|-------------------------|--------------------------|------------|
| QuickSeal LP 90 Comp. A | 20L pails and 200L drums | On Request |
| QuickSeal LP 90 Comp B | 20L pails and 200L drums | On Request |

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 users responsibility to satisfy himself, by his own information and test, to determine 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. We do not suggest or guarantee that any hazard listed herein is the only one which may exist. 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. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and VIP GmbH makes no claim that these tests or any other tests, accurately represent all environments.

The laws of the purchaser regarding of the quality of our materials follows completely our general terms and conditions. For requirements, which exceed the scope of the above mentioned applications, contact our technical staff.

Valid is only the actual version of this technical data sheet in each case.

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