

QuickCoat – Base Protect Polystar – 3 component coating – aliphatic

1. Characteristics:

QuickCoat – Base Protect Polystar is a premium, 3-component high solid coating, based on polyaspartic-technology, derived from a reaction of an aliphatic isocyanate Pre-Polymer and an amine terminated resin blend. On account of the UV- and colour fast properties it will be used amongst others as thin layer coating for surface protection and/or sealing (interior and outdoor area) on existing coating systems, but it is also designed for the classic corrosion protection of industrial constructions. **QuickCoat – Base Protect Polystar** can be installed on miscellenous substrates or surfaces and therefore it creates a flexible, durable, tough surface. **QuickCoat – Base Protect Polystar** can be applied with brush, roller or airless-sprayed as stand-alone system or as top coat for existing coting systems

2. Features:

- **Excellent color retention, UV resistant**
- **Very good adhesion on concrete structures without using a primer**
- **Superior chemcial resistance compared to a multitude of solvent agents**
- **High premium, decorative coating with effect-pigments for flooring**
- Fast reactivity and cure times
- Fast return to service time > long life-cycle > almost maintenance free > significant savings
- Excellent Top Coat on existing aromatic Polyurea Coatings
- Maintains flexibility > seamless and joint-less coating and lining
- Resistant to most chemicals, solvents, acids and caustics
- Good outdoor weathering > resistant to chlorine- and saltwater
- Hydrolysis firm > non sensitive to humidity
- Thermal stable
- Very good bonding properties to concrete and steel substrates
- Moderate impact & abrasion resistance
- Nearly no odor and VOC-free
- With no catalysts
- Broad colour spectrum (RAL)

3. Typical Uses:

- High grade, decorative coatings for floorings in hotel lobbies, entrance halls, exhibition halls
- For high quality optically demanding and decorative coatings of pools, furniture or model making.
- Structural element respectively ornament for high premium floorings
- Interior and exterior coating for museums or mosques or etc.

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4. Processing properties:	Datas
Mixing ratio of Comp. A to Comp. B	90 : 100 per weight
Material consumption [g/m ²]	ca. 250 – 500; dependent of the kind of application (Roller, Spray)
Recommended thickness [µm]	ca. 250 – 500 (for each layer)
Numbers of layer	1
Gelification time at 20°C [min.]	40 - 60
Waiting time between the single layers* [h]	1
Dust dry time* [h]	1 - 2
Walkable after* [h]	2 - 3
Curing* (Normal loading) [h]	16 - 24
Temperature range for application (ambience) [°C]	+5 - +50
Temperature range for application (substrate) [°C]	+5 - +50
Material temperature (QSP Top Coat) [°C]	20 (preferred)
Maximal relative air humidity for application [%]	98
Pay attention to the dew point limit	min. 3K > DP (dew point)

5. Physical Properties:	Datas
Chemical Base	- Comp. A: HDI-Prepolymer Comp. B: Mod. Polyaspartics Comp. C: Mod. Polyester-glitter
VOC-content [%]	DIN EN ISO 11890-1 / ASTM D-1259 10; VOC-free according to 1999/13/EC
Solids content [%]	DIN EN 827 / ASTM D-2697 90
Colour	- Different (on request)
Viscosity [mPa*s] @ 25°C	DIN EN ISO 2884-2 ASTM D-4878 Comp. A: 50 - 150 Comp.B: ca.. 2.500 Mix: ca. 1.000
Density [g/cm ³] @ 20°C	DIN EN ISO 2811-1 / ASTM D-1217 Comp. A: 1,10 – 1,14 Comp. B: 1,08 – 1,12 Mix: ca. 1,11
Density [g/cm ³]	EN ISO 1183 / ASTM D-792 1,10 ± 0,02
Tensile strength [MPa]	ISO 37-2005 / ASTM D-638 ≥ 6
Elongation at tear [%]	ISO 37-2005 / ASTM D-638 ≥ 70
Hardness [Shore D]	ISO 868-2003 / ASTM D-2240 50 ± 5
Taber Abrasion [mg]	ASTM D-4060 < 25 (Wheel CS17 / 1.000g / 1000 cycles)
Climate-Test [ΔE* _{ab}]	ISO 4892-2 Teil A After approx. 2,5 Years: < 1,5 (not observably with the naked eye)
Pull off strength [N/mm ²]	DIN EN ISO 4624 / ASTM D-4541 Polyurea: ≥ 4 Steel: ≥ 4 Concrete: ≥ 1,5
Max. Process temp. [°C]	ISO 11346 / ASTM D-2485 Wet: 60 Dry: 120 Peak temperature dry: 140
Storage conditions [°C]	DIN EN 12701 / ASTM 10 – 30 (in closed original drums, stored at dry and well ventilated place; beware of freezing)
Shelf life	- 12 months

*) All measurements at 23°C @ 50%rF. Deviations at different ambient conditions have to be taken into account.

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6. Hints for application:

Before using both components have to be stirred well and then component A has to be filled into component B completely and mixed carefully with an adequate agitator.

Into the liquid mixture of **QuickCoat – Base Protect Polystar comp. A+B** have to be weighed in 15% per weight of the effect-pigment called **QuickPlus 3K - Polystar** and then this reaction mass have to be stirred intensively with an adequate agitator until a homogenous mixture is reached.

After mixing of both components you should allow the mixture to rest for a few minutes (2-3 min).

The liquid mixture of **QuickPlus 3K – Polystar** have to be distributed extensively and plain over the complete area by a rubber slider until the substrate/surface is completely covered with the liquid material. In order to achieve a defined wet film thickness of the coating the liquid mixture has to be drawn using a squeegee with adjustable height.

For vertical areas the aforementioned coating system can applied by a roller (solvent resistant roller, mohair roller or similar) in thin layers.

QuickPlus Agent DLU (Diluter):

The aforementioned additive **QuickPlus Agent DLU** is suitable for the adjustment of the viscosity for the corresponding application:

Roller, squeegee: 0 – 5% per weight relating to the mixture A+B

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

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

IMPORTANT:

Using as a Top Coat respectively as a sealing of body layers based on aromatic polyurea coating systems e.g. QSP Industrial, the base coat must be primed first with **QPR 1K-PU universal** and then applying the **QuickCoat – Base Protect Polystar**.

As soon the primer displays a tack-free surface, earliest after approx 1 – 2 hours, dependent of the conditions of the surrounding, but latest after 6 – 12 hours the primer must be overcoated with **QuickCoat – Base Protect Polystar**.

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7. Form of delivery:

Product name	Unit	Ref.-No.
QuickCoat – Base Protect Polystar Comp. A+B	9,0 kg / 10 kg	On Request
QuickCoat – Base Protect Polystar Comp. A+B	4,5 kg / 5 kg	On Request
QuickCoat – Base Protect Polystar Comp. A+B	0,9 kg / 1 kg	On Request
QuickPlus 3K – Polystar golden sand	5 kg	On Request
QuickPlus 3K – Polystar golden sand	1 kg	On Request
QuickPlus 3K – Polystar bright silver	5 kg	On Request
QuickPlus 3K – Polystar bright silver	1 kg	On Request
QuickPlus 3K – Polystar green gold	5 kg	On Request
QuickPlus 3K – Polystar green gold	1 kg	On Request
QuickPlus 3K – Polystar purple	5 kg	On Request
QuickPlus 3K – Polystar purple	1 kg	On Request
QuickPlus Agent DLU	5 l	On Request
QuickPlus Agent DLU	1 l	On Request

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