

QuickCoat – Base Protect Crystal – 2 component coating – aliphatic

1. Characteristics:

QuickCoat – Base Protect Crystal is a premium, 2-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 Crystal** can be installed on miscellenous substrates or surfaces and therefore it creates a flexible, durable, tough surface. **QuickCoat – Base Protect Crystal** 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**
- 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:

- As UV- and colour-fast Top Coat or sealing on existing base coats for flooring and roofs etc.
- For high quality optically demanding and decorative coatings of pools, furniture or model making.
- Optimization of the weathering-, abrasion- and scratch resistance of wooden panels
- Clear coat application for the prolongation of the expendency of life for different substrates like PC, marmor, plastic, glass and etc.

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4. Processing properties:	Datas		
Mixing ratio of Comp. A to Comp. B	85 : 100 per weight		
Material consumption [g/m ²]	ca. 250 – 500; dependent of the kind of application (Roller, Spray)		
Recommended thickness [µm]	ca. 100 – 250 (for each layer)		
Numbers of layer	1 – 2 (also multi layer possible)		
Gelification time at 20 °C [min.]	40 - 60	15 - 25 (with accelerator-solution)	
Waiting time between the single layers* [h]	1	0,5 (with accelerator-solution)	
Dust dry time* [h]	1 - 2	0,5 - 1 (with accelerator-solution)	
Walkable after* [h]	2 - 3	1 - 2 (with accelerator-solution)	
Curing* (Normal loading) [h]	16 - 24	8 – 12 (with accelerator-solution)	
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		
VOC-content [%]	DIN EN ISO 11890-1 / ASTM D-1259	15; VOC-free according to 1999/13/EC		
Solids content [%]	DIN EN 827 / ASTM D-2697	85		
Colour	-	Semi-transparent		
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	≥ 11		
Elongation at tear [%]	ISO 37-2005 / ASTM D-638	≥ 50		
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.

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

QuickCoat – Base Protect Crystal should be applied preferably by roller (solvent resistant roller, mohair roller or similar) or alternatively by spraying in a conventional way with air pressure or airless application.

QuickPlus Agent DLU (Diluter):

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

Brush, Roller: 0 – 2% per weight relating to the mixture A+B

Spray, conventionell with compressed air or Airless: 0 – 7% per weight relating to the mixture A+B

QuickPlus Agent ACC (Accelerator-Solution):

For adjusting the gelification time respectively the curing time considering certain circumstances (like e.g. the ambient temperature or a short shut-down-window) it is possible under the support of the **QuickPlus Agent ACC** (accelerator-solution) to reduce the aforementioned application times.

Hereby has to be filled the content of **QuickPlus Agent ACC** completely in component B (equates approx. 1.5% per weight of component B), after component B was stirred well before.

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.

Cleaning of the spray equipment (conventionell or airless-machines):

After the application of **QuickCoat – Base Protect Crystal** with the spray machine is finished, all parts of the spray equipment, which come in contact with the material, have to be cleaned and flushed carefully with organic solvent like e.g. acetone, MEK, MIBK, Xylene or similar solvents.

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 Crystal**.

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 Crystal**.

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7. Form of delivery:

Product name	Unit	Ref.-No.
QuickCoat – Base Protect Crystal Comp. A+B	8,5 kg / 10 kg	On Request
QuickCoat – Base Protect Crystal Comp. A+B	4,25 kg / 5 kg	On Request
QuickCoat – Base Protect Crystal Comp. A+B	0,85 kg / 1 kg	On Request
QuickPlus Agent DLU	5 l	On Request
QuickPlus Agent DLU	1 l	On Request
QuickPlus Agent ACC	150 g	On Request
QuickPlus Agent ACC	75 g	On Request
QuickPlus Agent ACC	15 g	On Request

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

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