

QUICKFLOOR 500

ALIPHATIC FLOORING SYSTEM

1. CHARACTERISTICS

QuickFloor 500 is a high performance, rapid curing flooring product based on the latest polyaspartic / polyurea technologies. **QuickFloor 500** provides excellent colour and gloss retention and is resistant to most fuels, oils, solvents and cleaners.

Alternatively it can be applied using traditional methods such as roller, squeegee or notched trowel application. With a tack free time of 60 minutes **QuickFloor 500** allows fast return to service.

QuickFloor 500 can be pigmented or applied as a crystal clear anti-yellowing top coat over VIP's decorative flooring options.

2. FEATURES

✓	Extremely fast cure and return to service
✓	Excellent colour and gloss retention
✓	Cures to a very clear finish when not pigmented
✓	Excellent abrasion resistance
✓	Primerless
✓	Excellent adhesion to concrete substrates
✓	Excellent chemical resistance
✓	Resistant to most chemicals, solvents, acids and caustics
✓	Can be used for indoor and outdoor applications
✓	Stable over a wide temperature range
✓	Displays good flexibility and impact resistance compared to standard epoxies

3. TYPICAL USES

✓	As a seamless rapid application, commercial and Industrial flooring system
✓	Aircraft hangers
✓	Warehouse flooring
✓	Restaurants and kitchens, breweries, wine cellars, bakery shops
✓	Retail shops and shopping malls
✓	Hospital flooring
✓	Car park decks
✓	Crystal Clear transparent sealer coating
✓	Clear sealer coats over flakes and colored aggregates decorative flooring

QUICKFLOOR 500

ALIPHATIC FLOORING SYSTEM

4. PROCESSING PROPERTIES	DATA
Mixing ratio of Comp. A to Comp. B	1:1 by volume
Material consumption L / m ²	0.25 to 0.50 L/m ² , dependend application method (spray applied, roller, squeegee or notched trowel / rake)
Recommended thickness [μm]	250-500 (per layer)
Numbers of coats	1 - 2 (or more if required)
Pot life at 20°C [min.]	90 - 120
Waiting time between the single layers* [h]	1
Tack free time* [h]	1
Pedestrian traffic after* [h]	Light: 1,5 - 4 Heavy: 5 - 8
Curing* (Normal loading) [h]	16 - 24
Temperature range for application (ambience) [°C]	+5 - +50
Temperature range for application (substrate) [°C]	+5 - +50
Material temperature [°C]	20 (recommended)
Over coat window (hrs)	8
Maximal relative air humidity for application [%]	98
Pay attention to the dew point limit	min. 3K > DP (dew point)

5. PHYSICAL PROPERTIES	DATA
Chemical Base	- Comp. A: HDI-Prepolymer Comp. B: Mod. Polyaspartics/Polyurea
VOC-content [%]	DIN EN ISO 11890-1 / ASTM D-1259 10
Solids content [%]	DIN EN 827 / ASTM D-2697 90
Colour	- Clear
Viscosity [mPa*s] @ 25°C	DIN EN ISO 2884-2 / ASTM D-4878 Comp. A: -50 - 100 Comp.B: 600 – 1000 Mix: approx. 250
Density [g/cm ³] @ 20°C	DIN EN ISO 2811-1 / ASTM D-1217 Comp. A: 1.10 – 1,14 Comp. B: 1.01 – 1.05 Mix: 1.08
Density [g/cm ³]	EN ISO 1183 / ASTM D-792 1.08 ± 0.02
Tensile strength [MPa]	ISO 37-2011 / ASTM D-638 Max ≥ 35 Break ≥ 25
Elongation at tear [%]	ISO 37-2011 / ASTM D-638 ≥ 24
Hardness [Shore D]	ISO 868-2003 / ASTM D-2240 After 24h: 40 ± 5 After 48h: 50 ± 5

QUICKFLOOR 500
ALIPHATIC FLOORING SYSTEM

5. PHYSICAL PROPERTIES	DATA	
Rebound resilience [%]	ISO 4662 / ASTM	≥34
Tear growth resistance[N/mm]	ISO 34-1 method A	≥ 6
Taber Abrasion [mg]	ASTM D-4060	< 31 (Wheel CS17 / 1.000g / 1000 cycles)
Colour fastness T= 100°C 60 W/m ² 15000 kJ/m ²	DIN EN ISO 105-B06	After approx. 70 hours: ΔE* = 2,44 No chalking, no discolouration, no cracking and no blistering.
Colour fastness 8h QUV/60°C + 4h condensation/50°C UV-lamp: type A (340nm)	ASTM G154a / ISO 4892	After approx. 500 hours: No chalking, no discolouration, no cracking and no blistering.
Pull off strength [N/mm ²]	DIN EN ISO 4624 / ASTM D-4541	Polyurea: ≥ 4 Steel ≥ 4 Concrete: ≥ 1,5
Liquid Impingement Erosion Test conditions: Water jet 135m/s	ASTM G-73-10	Wear resistant up to 240 min. against liquid impingement erosion
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	-	Approximately 12 months
Antibacterial activity	BS ISO 22196	1,8 : Results „borderline“ (96,8-99,0%) – (Bacteria:S.aureus) 2,0 : Results „borderline“ (96,8-99,0%) – (Bacteria:E.coli)

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

6. APPLICATION ADVICE PART 1

Thoroughly power stir the B - side component.

If the application requires the **QuickFloor 500** to be pigmented add 10% by volume of the required pigment into the B-side component and power stir thoroughly before combining the A and B components.

Combine the A side and B-side components and power stir again before applying to substrate.

The mixing ratio of comp A to comp B is 1:1 by volume. To ensure full physical characteristics are achieved within the finished coating use graduated beakers / containers to ensure accurate 1:1 by volume mixing of component A and component B.

QuickFloor 500 can be applied using a standard airless spray machine.

QuickFloor 500 can be applied by roller, squeegee or notched trowel / rake.

QUICKFLOOR 500

ALIPHATIC FLOORING SYSTEM

7. APPLICATION ADVICE PART 2

When applying two or more coats allow each coat to dry completely before applying subsequent coats.
If recoat window is exceeded, sand slightly to produce a profile, reactivate with solvent and then apply the next coat.

Use a 8 - 13 mm Nap Mohair roller when rolling **QuickFloor 500**.

When applying **QuickFloor 500** with a squeegee or notched trowel the floor should be back rolled using a spiked roller to assist in de-airing the coating.

8. ADDITIONAL NOTES

In the event **QuickFloor 500** is to be pigmented in a very light colour be aware that additional coats may be necessary to achieve the required hiding power. When using very light colours like white the pigment loading can be increased from 10% by volume of the B-side to 20% by volume of the B-side component.

Take note that the tack free and curing times of **QuickFloor 500** are influenced by the environmental conditions at the time of application. Heat and humidity will accelerate the reactivity and curing of the **QuickFloor 500**. In hot and humid environments only mix small amounts of product at a time to enable full application of mixed product.

In cold environments the tack free and cure times can be extended considerably especially in environments less than 10C.

IMPORTANT NOTE

All test results and timings provided are based on tests carried out in laboratory conditions. Substrate and atmospheric temperature, humidity, condition and application thickness will all influence these results and therefore they must be used as a guide only.

PACKING

20 Liter Kits.
Smaller kits available on request.

STORAGE / SHELF LIFE

When stored in dry conditions out of direct sunlight in original unopened packaging, this product has a shelf life of approximately 12 months from the date of manufacture. Avoid storing product in temperatures above 35C as this may reduce the products shelf life. Drums, including empty drums should always be kept tightly sealed. During storage and processing, avoid any contamination with other liquids and moist air which may cause solids to form leading to blockages in filters, pumps and/or pipelines.

CLEANING

Prior to curing, tools may be cleaned with cleaning solvents. Once hard, by mechanical means only.

TECHNICAL SERVICES

Detailed technical assistance and further information regarding this system and its relevant application specifications are available from VIP Technical Services.

HEALTH AND SAFETY

Respiratory protection is mandatory for all sprayers and workers in the immediate vicinity of spray operations. A copy of the Model Respiratory Protection Program, developed by API is available at www.polyurethane.org and from the supplier.

QUICKFLOOR 500

ALIPHATIC FLOORING SYSTEM

9. FORM OF DELIVERY

Please see our price list for respective packaging units.

DISCLAIMER

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 makes no claim that these tests or any other tests can be accurately reproduced in all environments.

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

VIP reserves the right to change or modify the details and data contained herein at any time.

Valid is only the current actual version of this technical data sheet.

© Copyright, VIP , QuickFloor 500

Version: June 2024