

QUICKFLOOR 400 SF SLOW

ALIPHATIC HIGH PERFORMANCE FLOORING SYSTEM

QuickFloor 400 SF slow is a solvent free, low odor, high performance, rapid curing flooring product based on the latest polyaspartics / polyurea technology, which can easily be applied on account of its prolonged working time.

QuickFloor 400 SF slow provides excellent color stability, gloss retention and chemical resistance combined with a longer working time and higher elongation. **QuickFloor 400 SF slow** can be applied airless spray, low pressure plural component, roller, squeegee or a notched trowel. With a tack free time of app. 90 min re-use times are incredibly short saving customers valuable down time.

QuickFloor 400 SF slow can be applied as pigmented top coat over VIP's decorative flooring options and elastomeric coating systems.

USES

- As seamless rapid application, 1 product, 1 application, commercial, decorative 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
- Water Retaining Structures

FEATURES

- **Now FDA approval according to 21 CFR § 175.300**
- Solvent free
- Extremely fast cure and re-use times
- Longer open times so ideal for hot and humid climate.
- Remains flexible
- Very good hiding power when pigmented
- Excellent colour and gloss retention
- Cures to a very clear finish when not pigmented
- Excellent abrasion resistance
- Resistant to most chemicals, solvents, acids and caustics (s. chemical resistance list).
- Can be used for in-door and outdoor applications
- Stable over a wide temperature range
- High flexibility and impact resistance compared to traditional epoxy systems.

SURFACE PREPARATION

All cementitious substrates must be structurally sound. Surfaces must be entirely free of oil, grease, paint, dust, curing agents, release agents or other surface contamination. Loose or unsound material should be removed. Sweep and vacuum to remove all dust and debris.

Steel substrates should be prepared to a class 2 ½ near white blast finish with a surface profile of 80 microns.

Mask all adjacent surfaces and protect the surrounding area from overspray. Do not apply unless the substrate temperature is 3 °C or greater than dew point.

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PROCESSING PROPERTIES

INFORMATION ABOUT THE USE OF THE PRODUCT

	DATA
Mixing ratio of Comp. A to Comp. B	1:1 by volume
Material consumption L / m ²	0.25L @ 250 µm (Will vary based on substrate)
Recommended thickness [µm]	250 – 500
Numbers of coats	Depends on application requirements
Working time at 20°C [min.]	105 – 120 (lab reference beaker)
	40 – 60 (real application in field)
Waiting time between the single layers* [h]	4 – 5
Tack free time* [h]	
Pedestrian traffic after* [h]	Light: 5 Heavy: 8 – 12
Curing* (Normal loading) [h]	24
Temperature range for application (ambience) [°C]	+5 - +50
Temperature range for application (substrate) [°C]	
Over coat window (h)	8
Maximal relative air humidity for application [%]	98

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PHYSICAL PROPERTIES

INFORMATION ABOUT THE USE OF THE PRODUCT

	DATA	
Chemical Base	–	Comp. A: HDI-Prepolymer Comp. B: Mod. Polyaspartics/Polyurea
VOC-content	DIN EN ISO 11890-1 / ASTM D-1259	0%
Solids content	DIN EN 827 / ASTM D-2697	100%
Colour	–	Clear
Viscosity [mPa*s] @ 25° C	DIN EN ISO 2884-2 / ASTM D-4878	Komp. A: 800 - 1.200 Komp. B: 450 - 650 Mix: ca. 750
Density [g/cm³] @ 20° C	DIN EN ISO 2811-1 / ASTM D-1217	Comp. A: 1.11 – 1.15 Comp. B: 1.01 – 1.05 Mix: ca. 1.08
Density [g/cm³]	EN ISO 1183 / ASTM D-792	1.08 ± 0.02
Tensile strength [MPa]	ISO 37-2017 / ASTM D-638	≥ 20
Elongation at tear [%]		≥ 139
Modul [MPa]	ISO 37-2017 / ASTM D-638	100% elongation: ≥ 13
Hardness [Shore D]	ISO 868-2003 / ASTM D-2240	After 3 sec.: 50 ± 5
Rebound resilience [%]	ISO 4662 / AST	≥ 9
Tear growth resistance[N/mm]	ISO 34-1 method A	≥ 24
Taber Abrasion [mg]	ASTM D-4060	< 35 (Wheel CS17 / 1.000g / 1000 cycles)
Colour Fastness / artificial weathering Xenon arc radiation / Grey scale	ISO 105-A02	Fastness grade: 4-5 Qualitative terms: Str (stronger) Assessment: high - very high colour stability
Pull off strength [N/mm²]	DIN EN ISO 4624 / ASTM D-4541	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
FDA approval	21 CFR § 175.300	passed
Max. Process temp. [°C]	–	Wet: 60 Dry: -20 to +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	–	Approx. 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)

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APPLICATION ADVICE PART 1

Thoroughly power stir the B-side component. If the application requires **QuickFloor 400 SF slow** to be pigmented add 10% by volume of the required pigment into the B-Side component and 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.

For the fastest and easiest application use low pressure plural component spray machine like Graco E-8 with VIP configuration.

QuickFloor 400 SF slow can be applied using a standard airless spray machine or can be applied by roller, squeegee or notched trowel/rake.

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, wipe with acetone and then apply the next coat.

Use a 8 – 13 mm Nap Mohair roller when rolling **QuickFloor 400 SF slow**.

When applying **QuickFloor 400 SF slow** with a squeegee or notched trowel the floor should be back rolled using spiked roller to assist in de-airing the coating.

ADDITIONAL NOTES

In the event **QuickFloor 400 SF slow** 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. Eventual base coats should also be applied in light colors.

Please note that the tack free and curing times of **QuickFloor 400 SF slow** are influenced by the environmental conditions at the time of application. Heat and humidity will accelerate the reactivity and curing of **QuickFloor 400 SF slow**. 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 time and cure times can be extended considerably especially in environments less than 10°C.

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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 and 200 Litre drums
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.

DISCLAIMER

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This technical specification supersedes all previous data sheets.