

FLOW ROCK

HIGH-PERFORMANCE FLOORING PRODUCT

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

This solvent-free, two-part epoxy coating system displays excellent visual appeal as well as impressive chemical and physical characteristics.

ADVANTAGES

- Durable surface repels bacteria and moisture, effortless to clean.
- Apply multiple layers easily with strong adhesion.
- Solvent-free with ultra-low VOC (75.4 g/L), suitable for odor-free indoor use.
- Exceptional adhesion for coating and substrate bonding.

SAFETY MEASURES

Prioritizing safety during the handling of our product is paramount. To prevent skin contact, as some individuals may exhibit allergic reactions to the materials used, we strongly advocate the use of protective gloves, eyewear, appropriate attire, and ensuring proper ventilation. For comprehensive insights and guidance on the safe handling, storage, and disposal of chemical products, we urge you to consult the latest Safety Data Sheet (SDS). This resource contains essential physical, ecological, toxicological, and other safety-related data.

— KEEP OUT OF REACH OF CHILDREN
— KEEP FROM FREEZING CONDITIONS
— INTENDED FOR INDUSTRIAL USE ONLY

Disclaimer : Our recommendations and information pertaining to the application and utilization of our products are based on our extensive knowledge and experience, provided in utmost good faith. Nevertheless, the actual variances in materials, differences in substrates, and on-site conditions may have implications on the product's performance. Consequently, no warranty or liability can be inferred from this information or any recommendations. Users bear the responsibility of conducting their product testing tailored to their specific application and purpose. We strongly emphasize respecting the proprietary rights of third parties. All orders are subject to our prevailing terms of sale and delivery. For the most recent local product Technical Data Sheet related to the specific product, please don't hesitate to request it.

TECHNICAL DATA

Packaging	3 US gal (11.35 L) or 15 US gal (56.7 L)	
Color	PART A: Clear PART B: Clear to amber	
Recommended thickness	Primer	Finish Coat
Solid color	10 mils (150 ft ²² /gal)	16 mils (100 ft ²² /gal)
Flakes system	10 mils (150 ft ²² /gal)	13 mils (120 ft ²² /gal)
Metallic system	10 mils (150 ft ²² /gal)	40 mils (40 ft ²² /gal)
Shelf life	12 months in original unopened factory sealed containers. Keep away from extreme cold, heat, or moisture. Keep out of direct sunlight and away from fire hazards.	
Mix ratio, by volume	A:B = 2:1	
Mix ratio by weight	Clear: A:B = 100:41-48 Colors: A:B = 100:39-45 With quartz sand : A:B = 100:50 Mixture = 200	
Pot life 16 oz (454 g)	10-15 minutes @ 77°F (25°C)	
Working time	40 minutes	
Voc	75.4 g/L	

PROPERTIES

@ 73°F (23°C) AND 50% R.H.

Solids content, by volume	100%		
Solids content, by weight	100%		
Density (kg/l)	Part A	Part B	Mix
Clear	1.05 - 1.10	0.9 - 1.0	-
Colours	1.10 - 1.15	0.9 - 1.0	-
Thinner recommended	Xylene		

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Waiting time/ overcoatability	Substrate temperature	Minimum	Maximum	
Before applying pe-100 over primer	> 50°F (10°C)	24 hours	3 days	
	> 68°F (20°C)	12 hours	2 days	
	> 86°F (30°C)	6 hours	1 day	
Before applying second coat of pe-100	> 50°F (10°C)	30 hours	3 days	
	> 68°F (20°C)	24 hours	2 days	
	> 86°F (30°C)	16 hours	1 day	
Curing details	Substrate temperature	Foot traffic	Light traffic	Full cure
	> 50°F (10°C)	30 hours	5 days	10 days
	> 68°F (20°C)	24 hours	3 days	7 days
	> 86°F (30°C)	16 hours	2 days	5 days
Service temperature	-4°F to 122°F (-20°C to 50°C)			

* Times are approximate and will be affected by changing ambient conditions, especially changes in temperature and relative humidity.

BOND RESISTANCE (PSI), ASTM D4541	> 300 (substrate ruptures)		
PERMEABILITY (%), ASTM D570	0.3%		
HARDNESS (SHORE D), ASTM D2240	85-90		
ABRASIVE RESISTANCE, ASTM D4060 (CS17 / 1000 CYCLES / 1000 G)	0.10 g		
VISCOSITY @ 77°F (25°C)	Part A	Part B	Mix
Clear	1200-1400	150-350	600-800
Colours	1400-1600	150-350	1200-1400
TENSILE STRENGTH (PSI), ASTM D638	5500		
COMPRESSIVE STRENGTH (PSI), ASTM D695	14000		
FLAMMABILITY	Class I (Not considered Flammable, Flash Point > 199.4°F (93°C))		
ELONGATION (%), ASTM D638	6.7		

RESISTANCE TO MOLD GROWTH, ASTM D3273	Rated 10 (highest resistance)
RESISTANCE TO FUNGI GROWTH, ASTM G21	Rated 0 (no growth)

* The indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same mileage.

SURFACE PREPARATION

Old concrete

It's essential to clean the concrete surface thoroughly. BLASTAC, sand blasting, using a diamond grinder with a 30 grit or coarser setting, or water blasting are highly recommended to eliminate surface contaminants. Ensure any oils and fats are removed before applying the product. Acid etching might be necessary (followed by a thorough rinse) to open the concrete's pores for primer acceptance. Avoid applying on wet substrates. Check chloride, moisture, and pH levels before application. In most cases, using a primer before applying the coating is advisable.

New concrete

Ensure the concrete cures for at least 30 days. The concrete must have a compression resistance of at least 25 MPa (3625 lb/inch²) after 28 days and a traction resistance of at least 1.5 MPa (218 lb/in²). Use BLASTAC, sand blasting, a diamond grinder with a 30 grit or coarser setting, or acid etching (followed by thorough rinsing) to remove surface laitance that may have formed during curing. Apply a primer to minimize out-gassing and enhance adhesion.

MIXING

Before use, ensure materials are pre-conditioned to at least 50°F (10°C). Thoroughly mix each component separately. Pour component B into component A following the correct mixing ratio of 2A:1B by volume. Mix both components for at least 1 minute using a low-revolution drill (300 to 450 rpm) to minimize air entrapment. While mixing, scrape the container's bottom and walls at least once for a uniform blend. Prepare only the quantity that can be applied within the mixture's pot life.

APPLICATION

Apply the mixed product tightly onto the prepared surface in a thin film using a rubber rake. Then, use a roller to achieve a uniform coating. Be sure to avoid creating puddles.

CLEANING

Clean all tools and materials using the cleaner/thinner designed for epoxies. Wash your hands and skin thoroughly with warm, soapy water. Once the product has hardened, it can only be removed mechanically.

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RESTRICTIONS

- Substrate temperature ranges from 50°F to 86°F (10°C to 30°C).
- Max relative humidity during application and curing: 85%.
- Ensure substrate temperature is 5.5°F (3°C) above dew point.
- Humidity content of substrate should be < 4% when applying the coating.
- Avoid porous surfaces prone to humidity transfer during application.
- Do not use outdoors on ground-level substrates.
- Shield from humidity, condensation, and water contact during the initial 24-hour curing.
- Surface may discolor in areas exposed to regular UV light.

DISPOSAL

Follow federal, state, provincial, and local regulations when disposing of empty packaging and other waste materials.