

PPG RAVEN® 155 Primer

DESCRIPTION

Two-component, high-early strength penetrating epoxy primer/sealer for new and existing concrete

PRINCIPAL CHARACTERISTICS

- Waterborne epoxy
- Ultra-low viscosity
- Seals concrete surfaces, helping to eliminate outgassing of polymer topcoats
- TYPICAL USES:
- Recommended for new and existing concrete surfaces with a vapor emission rate greater than 3 lb/1,000 ft²/24 hr (1.5 kg/100 m²/24 hr) when tested according to ASTM F1869
- As a polymer additive with high-early strength concrete repair mortars

Note: Information Sheet available with test and certification data

COLOR AND GLOSS LEVEL

- Part A is Clear, Part B is Amber; Mixed product is Milky
- Semi-gloss
- Product dries to a transparent film

BASIC DATA AT 72° F (22° C)

Data for mixed product	
Number of components	Two
Mass density	9.4 lb/US gal (1.1 kg/l)
Volume solids	76 ± 2%
VOC (Supplied)	EPA Method 24: 0.0 lb/US gal (0.0 g/l)
Recommended dry film thickness	3.0 mils (76 µm) per coat
Theoretical spreading rate	80 ft ² /US gal for 3.0 mils (7.4 m ² /l for 76 µm)
Dry to touch	1 hour
Overcoating Interval	From when coating is still tacky but does not leave any residue on a gloved finger, to maximum 3 days at 68°F (20°C)

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Data for mixed product

Curing time	4 hours
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Notes:

- Spreading rate is based on wet film thickness (WFT) of 8 mils (200 µm)
- Spreading rate is based on application at 40% solids.
- See ADDITIONAL DATA – Spreading rate and film thickness
- If overcoat time is exceeded, abrade and clean surface before recoating
- Curing time reflects ready for service time
- Drying times listed may vary depending on temperature, humidity and air movement
- The shelf life for the unmixed components (Part A and Part B) for this product is 12 months at 70°F (21°C).
- Material should be stored in dry conditions, out of direct sunlight, and in unopened original factory containers, at temperatures above 60°F (16°C) and below 80°F (27°C).

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Concrete / Masonry

- Abrade surface to achieve a surface profile equivalent to CSP 3 to CSP 5 in accordance with ICRI 310.2R-2013
- Prepare in accordance with SSPC SP-13 guidelines
- New (Green) Concrete: Freshly applied concrete surfaces should be lightly troweled and allowed to cure until it may be walked on without leaving a mark
- Loose or protruding brick, mortar and concrete must be removed using a Mason's hammer, chisel or scraper
- All surfaces must be sound, dry, clean, free of oil, grease, dirt, mildew, curing compounds, loose and flaking paint, and other foreign substances

Substrate temperature and application conditions

- Substrate temperature during application should be between 40°F (4°C) and 120°F (49°C)

Note: For best results in limiting outgassing, apply to prepared concrete when the substrate temperature is stable or falling

SYSTEM SPECIFICATION

- Maximum of 8 mils (200 µm) WFT per coat at 40% solids, yielding 3 mils (80 µm) DFT
- One to two coats recommended
- PPG RAVEN® 155 primer qualifies as a concrete curing compound, since it meets the moisture retention requirements of ASTM C309, water loss of 1.0 lb/yd² (0.55 kg/m²)

INSTRUCTIONS FOR USE

- Apply by air or airless spray, brush or roller application
- New (Green) Concrete: Apply PPG RAVEN® 155 primer diluted to 40% solids by brush, roller or spray application
- As a polymer additive: Use 2 US gallons (7.6 liter) of PPG RAVEN® 155 primer diluted to 40% solids as a polymer additive liquid with 60 lb (27 kg) of high-early strength repair mortar



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Mixing ratio by volume: Part A to Part B 50:50 (1:1)

- To obtain the suggested "40% solids" state, add two parts potable water (by volume)
- Pre-mix each component with a power mixer at moderate speeds to homogenize the container
- Measure out equal volumes of both components into a clean disposable pail
- Combine Part A and Part B components and agitate with a power mixer for 3 minutes until completely mixed
- Dilute by adding two pints water while mixing for another 2 minutes
- Scrape sides and bottom to obtain a thorough mix before application
- Properly mixed material will be a uniform color without light or dark spots

Pot life

45 minutes at 72°F (22°C)

Notes:

- Listed pot life is for one US gallon (3.8 L) quantity
- Longer pot life is possible by mixing smaller amounts and cooling down the components before mixing

Recommended thinner

Only potable water may be added

Cleaning solvent

Soap and water

Note: For Part A only you may use MEK, acetone, or xylene

Cleaning solvent

- Soap and water

Note: For cleaning tools

ADDITIONAL DATA

Physical data of cured material	
Characteristic	Value
Hardness, Shore D (ASTM D2240)	70
Adhesion to Concrete (ASTM D7234)	To concrete failure

Note: The value ranges stated in this Technical Data Sheet are based on system processing under laboratory conditions. Equipment configurations and/or field application conditions may produce variances in final system values.

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DISCLAIMER

- PPG Protective & Marine Coatings does not accept any responsibility or liability for any odor, taste or contamination imparted to the drinking water from the coatings or products retained in the coating
- For industrial or professional use only
- This product is specifically suitable for use on the substrates mentioned in this document. For application on any other substrates, please always contact your distributor for specific instructions and in order to make sure that the product performance can be safeguarded.

SAFETY PRECAUTIONS

- Read all label and Safety Data Sheet (SDS) information prior to use

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

REFERENCES

• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SAFETY INDICATIONS	INFORMATION SHEET	1430

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