

# PPG RAVEN® 171FS Primer

## DESCRIPTION

100% solids, low viscosity penetrating epoxy primer/sealer that can be applied to dry or partially damp surfaces

## PRINCIPAL CHARACTERISTICS

- Formulated for use as a primer on concrete, masonry or brick substrates
- Designed to seal concrete and reduce off-gassing when concrete temperature is above 40°F (4°C)
- May be applied to dry or partially damp surfaces
- TYPICAL USES:
- Tunnels & pipelines
- Digesters
- Wastewater structures
- Clarifiers
- Tanks
- Manholes

Note: Information Sheet available with test and certification data

## COLOR AND GLOSS LEVEL

- Part A is clear, Part B is Amber; Mixed product is Amber
- Product dries to a dark yellow, transparent film

## BASIC DATA AT 72°F (22°C)

Basic Product Data	
Number of components	Two
Mass density	8.8 lb/US gal (1.1 kg/l)
Volume solids	100 ± 2%
VOC (Supplied)	EPA Method 24: 0.0 lb/US gal (1.9 g/l)
Recommended dry film thickness	5.0 - 10.0 mils (125 - 250 µm) per coat
Theoretical spreading rate	160 ft <sup>2</sup> /US gal for 10.0 mils (3.9 m <sup>2</sup> /l for 250 µm)
Dry to touch	4 hours at 13 °C (55°F)
Overcoating Interval	Minimum: Coating should no longer leave residue when touched with a gloved finger Maximum: 48 hours

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## Basic Product Data

Shelf life	At least 12 months when stored cool and dry
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### Notes:

- Spreading rate is based on wet film thickness (WFT) of 10 mils (250 µm)
- The spreading rate is dependent on the absorption capability coming from the roughness and porosity of the concrete
- See ADDITIONAL DATA – Spreading rate and film thickness
- Overcoating window times are based on ambient temperature of 55°F (12.8°C)
- If overcoat time is exceeded, abrade and clean surface before recoating

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

### Concrete / Masonry

- Surface must be sound and free from contamination (such as oil, grease, rust, scale, or deposits).
- Abrade surface to achieve a surface profile equivalent to CSP 3 to CSP 5 in accordance with ICRI 310.2R-2013
- Abrasive blasting, shot blasting, high-pressure water cleaning, water jetting or a combination of methods may be used
- Concrete pH must be 7.0 or higher

### Substrate temperature and application conditions

- Substrate temperature during application should be between 40°F (4°C) and 80°F (27°C)

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

## SYSTEM SPECIFICATION

- To be applied in two coats

## INSTRUCTIONS FOR USE

- Material temperature should be at least 60°F (16°C) for optimal performance

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

- Product is sold in pre-measured containers at the required ratio
- Pre-mix Part A and Part B containers prior to measuring out equal parts into a clean, disposable pail
- Completely mix combined components for a minimum of two 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
- The temperature of the unmixed material should not be above 120°F (48°C)

Note: If lower viscosity is needed, heat unmixed material by placing the containers in hot tap water until the desired flow properties are obtained



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## **Pot life**

40 minutes at 55°F (13°C)

### Notes:

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

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## **Application**

- Apply by airless spray or roller application

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### **Airless spray**

- Recommended tip size: 511-515
- Adjust pump pressure as needed

### **Recommended thinner**

No thinner should be added

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### **Roller**

- Apply with ¼" to ½" nap epoxy-compatible roller

### **Recommended thinner**

No thinner should be added

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### **Cleaning solvent**

MEK, acetone or xylene

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### **Cleaning procedures**

- All application equipment must be cleaned immediately after use

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## **ADDITIONAL DATA**

<b>Physical data of cured material</b>	
<b>Characteristic</b>	<b>Value</b>
Tensile Strength (ASTM D638)	4,900 psi (34 MPa)
Tensile Ultimate Elongation (ASTM D638)	12%
Hardness, Shore D (ASTM D2240)	74
Adhesion to Concrete (ASTM D7234)	To substrate 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

## WARRANTY

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