

# PPG RAVEN 705CA Repair Mortar

## DESCRIPTION

Reinforced calcium-aluminate cementitious repair mortar for use on concrete and masonry structures

## PRINCIPAL CHARACTERISTICS

- Cementitious product
- Can be spray applied
- Resists acids and caustics
- Can be used as a standalone product or as an underlayment
- TYPICAL USES:
- Surfaces where rehabilitation of an existing structure requires enhancement of the structural integrity and stability

## BASIC DATA AT 72°F (22°C)

Data for product	
Number of components	One
Dry to touch	20 hours
Dry to overcoat	Minimum 24 hours
Curing time	24 hours
Shelf life	Powder: at least 12 months when stored cool and dry

Note:

- Material should be stored in dry conditions, out of direct sunlight, and in unopened original factory containers, at temperatures above 40°F (4°C) and below 110°F (43°C)

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Surfaces must be damp but free of excess or flowing water before application.
- A Saturated Surface Dry (SSD) condition is required.
- All active leaks must be stopped

## Concrete / Masonry

- Surface must be clean, uniform, sound, and free from contamination (such as oil, grease, rust, scale, or deposits)
- Prepare in a manner that provides a neutralized surface
- 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
- Loose or protruding brick, mortar and concrete must be removed using a Mason's hammer, chisel or scraper

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## **Substrate temperature and application conditions**

- Substrate temperature during application should be between 35°F (2°C) and 90°F (32°C)
- Ambient temperature during application and curing should be between 40°F (4°C) and 90°F (32°C)

### Note:

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

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## **SYSTEM SPECIFICATION**

- Minimum application thickness is 0.5 in (1.3 cm)
- Maximum application thickness is 1 in (2.5 cm)
- Additional thickness may be achieved by applying successive applications
- Theoretical coverage is 13.7 ft<sup>2</sup> (1.3 m<sup>2</sup>) per 65 lb (30 kg) bag at 0.5 in (1.3 cm) nominal thickness

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## **INSTRUCTIONS FOR USE**

- If time between applications of additional product is to be longer than 15 minutes, place a cover over structure to restrict air movement
- At no time should the finished product be exposed to sunlight or air movement for longer than 15 minutes
- In extremely hot and arid climates, surfaces shall be shaded while application is in process
- In environments where the humidity level is below 70%, the applied product shall be kept damp for 72 hours

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## **Preparation**

- Mix 65 lb (30 kg) bag of dry cement powder with 1.0 - 1.3 US gallon (3.8 - 4.9 liters) of clean potable water
- Follow mixing procedure on product label

### Note:

- Temperature of water for mixing shall not exceed 80°F (27°C); chill with ice if necessary

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## **Application**

- Optimal mixing and application can be achieved with the use of an approved low-velocity, cementitious spray system or other suitable method
- Can be applied by trowel
- Product working time is 45 minutes at 72°F (22°C)

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## **CLEANING PROCEDURE**

- Clean tools and equipment with water
  - To clean skin, wash immediately and thoroughly with soap and water
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## ADDITIONAL DATA

Physical data of cured material	
Characteristic	Value
Tensile Strength (ASTM C496)	685 psi (4.7 MPa)
Flexural Strength (ASTM C293)	>1,650 psi (>11.4 MPa)
Compressive Strength (ASTM C109, 28 days)	>9,200 psi (>63.4 MPa)
Shrinkage (ASTM C596, @ 90% relative humidity)	0%
Freeze/Thaw (ASTM C666, 100 cycles)	No visible damage
Bond Strength (ASTM C882)	>4,000 psi (>28 MPa)

Note:

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

## 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 or PMC representative 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 & 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

- Information sheet | Explanation of product data sheets

## WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.



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## AVAILABILITY OF PACKAGING

### Packaging

- 65 lb bags
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