PPG Flooring 431 MMA Binder

Formerly known as AC313 BINDER RESIN

DESCRIPTION

100% reactive curing acrylic resin binder coat for self-leveling, broadcasted and troweled mortar systems.

PRINCIPAL CHARACTERISTICS

- Rapid cure and return-to-service
- Allows for curing at lower temperatures
- Resistant to water and chemicals
- Good flow and leveling properties
- Good UV resistance
- High wear and chemical resistance
- Can be used as a broadcast coat or a slurry body coat filler
- Hot water resistance, ranging from 140°F (60°C) and 176°F (80°C)
- TYPICAL USES:
- Suitable for slip resistant coatings in wet areas
- Suitable for mechanical and thermal load

COLOR AND GLOSS LEVEL

- Product is clear as supplied.
- Color packs are available for the following colors:
- Blue, Medium Gray, Red, and Tan
- Satin

Note:

- Do not exceed 10% volume of pigment to resin

BASIC DATA AT 70°F (21°C)

Data for mixed product	
Number of components	Two
Mass density	8.1 lb/US gal (1.0 kg/l)
Volume solids	99% ± 2%
VOC (Supplied)	EPA Method 24: 0.7 lb/US gal (85.1 g/l)
Recommended dry film thickness	16.0 - 20.0 mils (406 - 508 µm) per coat
Theoretical spreading rate	100 ft^2/US gal for 16.0 mils (2.5 m^2/l for 406 µm) 53.5 ft^2/US gal for 30.0 mils (1.3 m^2/l for 762 µm)
Dry to touch	20 minutes
Dry to overcoat	20 minutes
Full cure after	55 minutes
Shelf life	Base: 12 months

Notes:

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- Basic product data is based on final mixed product of 5 US gallons (19 L) PPG Flooring 431 MMA resin and 20 fl. oz. (591 mL) of PPG Flooring 6492 MMA Catalyst at 70°F (21°C)
- Material should be stored in dry conditions, out of direct sunlight, in unopened original factory containers, at temperatures above 50°F (10°C) and below 75°F (24°C)
- See ADDITIONAL DATA – Curing time
- See ADDITIONAL DATA – Spreading rate and film thickness

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate temperature and application conditions

- Substrate temperature during application should be between 30°F (-1°C) and 90°F (32°C)
- The surface temperature must be at least 5°F (3°C) above dew point
- For slabs on grade, test for moisture in accordance with ASTM F1869 (calcium chloride test)
- Vapor transmission should be less than 3 lbs./1000 sq. ft. per 24 hr period
- Maximum relative humidity during application and curing is 80%

Concrete

- All surfaces must be sound, dry, clean, free of oil, grease, dirt, mildew, curing compounds, loose and flaking paint, and other foreign substances
- New concrete must cure a minimum of 28 days prior to application
- Prepare surface as per SSPC-SP13 guidelines
- Abrade surface to achieve a surface profile equivalent to CSP 3 to CSP 5 in accordance with ICRI 310.2R-2013

SYSTEM SPECIFICATION

- Resin product must be mixed with PPG Flooring™ 6492 MMA Catalyst at the volumes shown below prior to applying the mixed product to the prepared substrate.

Catalyst volumes by temperature

- Above 70°F (21.1°C) use 3-4 fl oz (89-118 ml) of the catalyst per gallon (3.8 L) of resin
- At 60°F (15.6°C) use 4-5 fl oz (118-148 ml) of the catalyst per gallon (3.8 L) of resin
- At 50°F (10.0°C) use 5-7 fl oz (148-207 ml) of the catalyst per gallon (3.8 L) of resin
- At 40°F (4.4°C) use 7-9 fl oz (207-266 ml) of the catalyst per gallon (3.8 L) of resin
- At temperatures below 40°F (4°C), PPG Flooring™ 6493 Cold Temperature Accelerator must be added to the resin before adding the catalyst. See below for more information on using 6493 CTA.
- At 30°F (-1.1°C) use 9-10 fl oz (266-296 ml) of the Catalyst per gallon (3.8 L) of resin

Notes:

- Indicated temperatures are for the resin, the ambient air, and the prepared substrate
- Do not use less than 4 fl oz (118 ml) of catalyst by volume unless confirmed by PPG Tech Services.

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Use of Cold Temperature Accelerator

- At temperatures below 40°F (4°C) add approximately ½ oz (15 ml) of PPG Flooring 6493 Cold Temperature Accelerator per gallon of resin
- VERY IMPORTANT: PPG Flooring 6493 Cold Temperature Accelerator MUST be added and thoroughly blended before adding the catalyst to prevent hazardous decomposition (i.e. aggressive foaming)
- PPG Flooring 6493 Cold Temperature Accelerator will cause yellowing. Use pigmented resin to reduce the appearance of yellowing

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INSTRUCTIONS FOR USE

Preparation

- Mixing preparation is dependent on ambient, substrate, and material temperature.
- Pre-mix base component to homogenize the container. Add hardener and stir until completely dispersed. Blend at least 2-3 minutes with a slow speed (200-400 rpm) mixer
- Only mix subsets which can be processed within the pot life, due to rapid curing
- Apply immediately after mixing
- No thinner should be added

Note:

- Under dosage may result in curing disturbances; over dosage may result in color alterations

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Application

- Substrate must be primed first using PPG Flooring™ 920 MMA Primer or PPG Flooring™ 927 HA/MT MMA Primer. For further information on these products, please review their product data sheets
- Apply evenly over the surface using a notched squeegee or trowel.
- If a slip-resistant surface is desired, broadcast to excess a natural quartz sand of at least 20 mesh size at a rate of 0.25- 1.25 lb/ft^2 (1.2-6.1 kg/m^2)
- Ensure good ventilation during application and curing
- Remove excess sand or flakes (with broom or vacuum) once product has cured.
- No thinner should be added

Material temperature

- Material temperature during application should be between 30°F (-1°C) and 90°F (32°C)

Pot life

8 minutes at 70°F (21°C)

Note:

- See ADDITIONAL DATA – Pot life

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Cleaning solvent

- Acetone or Ethyl Acetate

CLEANING PROCEDURE

- All application equipment must be cleaned immediately after use

ADDITIONAL DATA

Batching ratios

- Resin: 1.0 gallon (3.8 L) or 8.2 lb (3.7 kg)
- Typical self-leveling slurry batch:
- Self-leveling filler: 1.0-1.5 gallon (3.8-5.7 L) or 15-22 lb (6.8-10.0 kg)
- Catalyst: As required by temperature (see SYSTEM SPECIFICATIONS above)
- Pigment Pack: 6.4 fl oz (189 ml)
- Contact PPG Tech Services for mix ratios if other filler material is desired.
- For instructions on mixing the self-leveling filler in with the base and hardener, please contact PPG Tech Services
- Should be applied at a wet thickness of 60-120 mils (1524-3048 µm)

Curing time for DFT up to 20.0 mils (500 µm)	
Substrate temperature	**Dry to touch**
30°F (-1°C)	40 - 60 minutes
40°F (4°C)	40 - 60 minutes
50°F (10°C)	40 - 50 minutes
60°F (16°C)	30 - 35 minutes
70°F (21°C)	30 - 35 minutes
80°F (27°C)	25 - 30 minutes

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
30°F (-1°C)	20 minutes
40°F (4°C)	20 minutes
50°F (10°C)	20 minutes
60°F (16°C)	20 minutes
70°F (21°C)	15 minutes
90°F (32°C)	10 minutes

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DISCLAIMER

- 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

- 5-gallon containers
- 55-gallon drums