

FIRM GRIP II – EPOXY #244821/244831

Two-Part High Build Epoxy Coating



Features:

- For use on a high build colorfast impact resistant floor
- Suitable in many chemical exposure environments
- 100% (+/- 1%) solids epoxy coating
- Available in black (#244821) and yellow (#244831)



Description:

FIRM GRIP II is a two-part component 100% (+/- 1%) solids epoxy colored coating designed for applications where a high build colorfast impact resistant floor is needed. Recommended for a high build topcoat or basecoat on concrete or masonry. Product is suitable in many chemical exposure environments.

Applications:

- Concrete
- Steel
- Masonry
- Wood
- Ramps
- Stairs
- Docks
- Walkways

Product Characteristics:

	Part A	Part B
Appearance & Odor:	Low viscosity liquid in varying colors.	Amber clear liquid with amine odor.
Specific Gravity (H ₂ O = 1):	1.5	1.0
Vapor Pressure:	N/A	N/A
Solubility (water):	Negligible.	Negligible.
pH:	N/A	N/A
Boiling Point/Range:	200 to 279°F	401 to 560°F
Storage:	Store locked up.	
Transport Information:		
UN Proper Shipping Name:	Not regulated	CORROSIVE LIQUID N.O.S. (CONTAINS ISOPHORONE DIAMINE, NONYL PHENOL),
UN Number:	Not regulated	UN1760
Class:	Not regulated	8
Packing Group:	Not regulated	PG III

Directions:

Request and read the technical data sheet before use. Properly prepare the substrate. Remove all contaminants including curing compounds. Make sure the floor surface is dry. Store material at room temperature before using. Apply an appropriate primer. Apply material between 60-90°F-lower temperatures will require more time for material to cure. Check all coats for epoxy blushes. Mix the Part A and Part B together thoroughly (make sure the mix ratio is correct). Apply the material by brush, or roller. Use an air release roller tool to remove any entrapped air. Apply material with the R.H. below 85%.

Do not use in battery areas.

Application Temperature: 60-90°F with relative humidity below 85%

Mix Ratio: 12 pounds (1 gallon) Part A to 4.15 pounds (.50 gallons) Part B (volumes approx.) (standard colors)

Recommended Film Thickness: 12-30 mils

Coverage Per Gallon: 53-130 square feet per gallon @ 12-30 mils

Cure Schedule:

Pot life – 1 1/2 gallon volume 30-50 minutes
 tack free (dry to touch) 5-8 hours
 recoat or topcoat 8-12 hours
 light foot traffic 12-14 hours
 full cure (heavy traffic) 2-7 days

Primer: Recommended

Topcoat: Optional – aliphatic urethanes can be used for increased chemical resistance or increased UV stability.

Chemical Resistance:

REAGENT	RATING
xylene	C
trichloroethylene	B
methanol	A
ethyl alcohol	B
skydrol	B
10% sodium hydroxide	E
50% sodium hydroxide	D
10% sulfuric acid	C
70% sulfuric acid	A
10% HC1 (aq)	C
5% acetic acid	B

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion.

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Continued



Solids By Weight:

100% (+/- 1%)

Solids By Volume:

100% (+/- 1%)

Volatile Organic Content:

Less than 2 g/l

Finish Characteristics:

Gloss (70-95 at 60 degrees @ glossmeter)

Abrasion Resistance:

Taber abraser CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 32 mg loss

Flexural Strength:

5,400 psi @ ASTM D790

Compressive Strength:

9,100 psi @ ASTM D695 – 1/2 "X 1/2" bars

Adhesion:

450 psi @ elcometer (concrete failure, no delamination)

Viscosity:

Mixed = 1300-2300 cps (typical, most colors)

Tensile Strength:

4,800 psi @ ASTM D638

Ultimate Elongation:

3.1%

Gardner Variable Impactor:

50 inch pounds direct – passed

Hardness:

Shore D = 80

Mixing & Application Instructions

1) Product Storage: Store product at normal room temperature. Continuous storage should be between 60 and 90°F. Low temperatures or temperature fluctuations may cause product crystallization.

2) Surface Preparation: The most suitable surface preparation would be a fine brush blast (shot blast) to remove all laitance and provide a suitable profile. All dirt, foreign contaminants, oil and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete is dry; this can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is dry enough to start coating.

3) Product Mixing: This product has a mix ratio of 12# part A to 4.15# part B or two parts A to one part B by volume for standard colors. Standard packages are in pre-measured kits and should be mixed as supplied in the kit. We highly recommend that the kits not be broken down unless suitable weighing equipment is available. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix. The material in the transfer pail is now ready to be applied on the primed substrate. Improper mixing may result in product failure.

4) Priming: A suitable primer should be used before applying this product. See the front side of this technical data for primer information. If a primer is not used, more porous substrates may cause outgassing and possible surface defects.

5) Product Application: The mixed material can be applied by brush or roller. However, the material can also be applied by a suitable serrated squeegee and then back rolled as long as the appropriate thickness recommendations are maintained. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. If concrete conditions or over aggressive mixing causes air entrapment, then an air release roller tool should be used prior to the coating tacking off to remove the air entrapped in the coating.

6) Recoat Or Topcoating: If you opt to recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. However, all previous coats should be deglossed to insure a trouble free bond prior to application of recoats or topcoats. Colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before recoating or topcoating, check for epoxy blushes (a whitish, greasy film or deglossing). If a blush is present, it can be removed by any standard detergent cleaner prior to topcoating or recoating. Many epoxy coatings and urethanes as well as multiple coats of this product are compatible for use as a topcoat.

7) Cleanup: Use xylol.

8) Floor Cleaning: Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.

9) Restrictions: Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle. Dependent on actual complete system application, surface may be slippery, especially when wet or contaminated; keep surface clean and dry.

Limitations:

Color stability or gloss may be affected by environmental conditions such as high humidity, low temperatures, chemical exposure or exposure to certain types of lighting such as sodium vapor lights.

Colors may vary from batch to batch. Therefore, use only product from the same batch for an entire job.

This product is not UV color stable and may discolor when exposed to UV lighting. Otherwise, the color stability of this product is good. Therefore, a topcoat is optional and dependent on the environment.

Light or bright colors may require a suitable primer or topcoat to achieve a satisfactory hide.

Substrate temperature must be 5°F above dew point.

All new concrete must be cured for at least 30 days prior to application.

Apply a suitable primer before using this product as a coating.

See reverse side for application instructions.

Physical properties are typical values and not specifications.

Pictograms:

Part A:



Part B:



Signal Word:

Part A:

WARNING

Part B:

DANGER

Personal Protective Equipment Required:



DOT Placard:

Not available.

VOC Complyancy:

Not available.