

# MPE (Multi-Purpose Epoxy)

### DESCRIPTION

**MPE** is a multi-purpose, two-component, 100% solids epoxy coating designed for use in a wide range of polymer flooring systems. It may be used as a primer, body coat, broadcast coat, grout coat, or clear coat, depending on system design and project requirements. **MPE** provides excellent adhesion, durability, and workability for both decorative and functional flooring applications.

With the addition of a compatible color pack, **MPE** may be used as a pigmented body coat or base coat. **MPE** may also be combined with mica pigments to create decorative metallic flooring systems that produce unique visual effects.

**MPE** is suitable for use in commercial, industrial, residential, and institutional environments where a durable epoxy-based flooring system is required.

### KEY ADVANTAGES

- Versatility
- Self-leveling application
- 100% solids, Zero VOC
- Durable
- Seamless

### TYPICAL USES

- Warehouses
- Mechanical and equipment rooms
- Manufacturing areas
- Bathrooms and restrooms
- Locker rooms and changing areas
- Commercial kitchens and food prep areas
- Laboratories and Clean Rooms

### TECHNICAL DATA

LIQUID PHASE PHYSICAL PROPERTIES	
Mix Ratio (By Volume):	2 Parts Resin (Part A): 1 Part Hardener (Part B)
Mix Solids (By Volume):	100%
Mixed VOC:	0 g/L
Theoretical Flashpoint: (@77°F/50% RH)	Resin: 259°F (137°C) Hardener: 449°F (232°C)
Mixed Density:	8.91 lb/gal
Mixed Viscosity: (Brookfield @ 10 rpm)	900-1100 cps

SOLID PHASE PHYSICAL PROPERTIES	
Color:	Clear
Finish (60 Gloss):	75 - 85 GU
Hardness:	Shore D (24 hrs): 60 Shore D (7 days): 68
Bond Strength (Concrete):	>600 psi (concrete failure)
Abrasion Resistance (Taber, CS-17, 1,000g, 1,000 cycles):	63 mg loss
Elongation:	>56%
Impact Resistance (Direct):	>88 in-lb
<i>*Unless otherwise stated, all tests are conducted at 77°F and 50% RH after 7 days of curing</i>	

**COLORANT / PIGMENTATION**

MPE is sold as a clear product. If your project requires pigmentation, a suitable colorant system will need to be selected. Please contact your IntegraCoat Solutions representative for a recommendation.

**CURE CHARACTERISTICS**

Work Time:	20 Minutes
Pot Life:	30-35 Minutes

Ambient Cure Schedule:	Light Foot Traffic:	Full Foot Traffic:	Full Cure:
	8 - 10 Hours	18 - 24 Hours	7 Days

Recoat:	Minimum Recoat Time:	Maximum Recoat Time:
	8 - 10 Hours	48 Hours

*\*All tests conducted at 77°F and 50% RH*

**GENERAL APPLICATION PARAMETERS**

MPE may be used in a wide range of IntegraCoat flooring systems, including primer, body coat, broadcast coat, grout coat, and clear coat applications. Actual application methods, film thickness, coverage rates, and number of coats will vary depending on the specific system design, substrate condition, surface profile, and project requirements. The following parameters are provided as general guidelines for the material and are not intended to replace system-specific specifications.

APPLICATION THICKNESS AND COVERAGE RATE			
Specification	Wet Film Thickness (WFT)	Dry Film Thickness (DFT)	Coverage Rate
Minimum Application	5.00 mils	5.00 mils	~320 ft <sup>2</sup> /Gal
Maximum Application	30.00 mils	30.00 mils	~53 ft <sup>2</sup> /Gal

*Coverage rates are theoretical and do not account for material loss, substrate porosity, or surface irregularities.*

**Application Coats**

One or more coats may be applied. The exact number will depend on the desired coating thickness and the specific IntegraCoat system being installed. For additional guidance, contact your IntegraCoat Solutions representative.

**CONDITIONS DURING APPLICATION**

APPLICATION ENVIRONMENTAL CONDITIONS	
Material Temperature Range:	50-95°F
Ambient Temperature Range:	50-95°F
Substrate/Surface Temperature Range:	50-95°F*
<i>*Substrate/Surface temperature should be at least 5°F above the dew point.</i>	
Relative Humidity Range:	30-80%**
<i>**Higher humidity will significantly reduce working time, pot life, and cure time.</i>	
<i>Ensure these environmental conditions are maintained throughout the entire application and curing process.</i>	

## SURFACE PREPARATION OF THE SUBSTRATE

MPE should be applied to properly prepared concrete.

Coating performance is directly related to the quality and thoroughness of surface preparation. All surfaces must be fully cured, clean, dry, and free of dust, oil, grease, laitance, curing compounds, or any other contaminants that may impair adhesion.

Prior to application, check the substrate for moisture content and moisture vapor transmission (MVT) to ensure conditions are suitable for coating.

Surface preparation shall be completed using mechanical methods and comply with AMPP SSPC-13 / NACE No. 6 to achieve an ICRI Concrete Surface Profile (CSP) appropriate for the thickness of the coating system.

A test patch is recommended to confirm compatibility and adhesion.

If a smooth finish is desired, fill voids, spalls, and bug holes prior to application.

When recoating or applying over an existing coating, the surface must be properly cleaned and mechanically prepared to ensure sufficient adhesion. After mechanical preparation, solvent-wipe the surface with a clean, lint-free cloth to remove residual dust and contaminants before applying the next coat.

Coating System Film Thickness	ICRO Concrete Surface Profile Numbers
0 - 3 mils	CSP 1 - 3
4 - 10 mils	CSP 1 - 3
10 - 40 mils	CSP 3 - 5
50 mils - 1/8 in	CSP 4 - 6
1/ in - 1 in	CSP 5 - 9

If your substrate or project conditions differ from those described, please contact your IntegraCoat Solutions representative for guidance.

## MIXING

**Mix Ratio:** 2:1 by volume - Resin (Part A) : Hardener (Part B)

Premix Part A and Part B immediately before use. Measure the required amount of Part A into a clean, suitable container that can accommodate the full mixture. Then, pour in the correct proportion of Part B (half the volume of Part A), taking care to avoid splashing material onto the sides of the container.

Begin mixing slowly with a low-speed drill and a steel or polyethylene spiral mixing paddle. Gradually increase the speed and mix for 2-3 minutes until the material is thoroughly blended. Avoid whipping air into the mixture.

After initial mixing, transfer the material into a clean second container (the transfer pail) and mix again briefly.

The material in the transfer pail is now ready for application.

*For 3-gallon kit components, which are in premeasured containers, the mix may be completed in the Resin pail. If mixing the entire kit, premix each component and then pour the entire Part B into the Part A pail, following the directions above.*

## MIXING TIPS & WARNINGS

- Only mix what can be applied within the stated working time.
- Do not add freshly mixed material to previously mixed material.
- Improper mixing may result in product failure.

## APPLICATION

MPE may be used for a variety of applications, and specific techniques may vary depending on system design and intended use. The following guidelines outline general application procedures.

Using the mixed material from the transfer pail, pour the mix (all or the amount that can be applied within the stated working time) onto the floor in a ribbon-like fashion. Spread the epoxy evenly using a squeegee (notched or flat, depending on the application) to achieve the desired film thickness. If necessary, use a wet film thickness gauge to confirm thickness. Back-roll promptly and consistently to produce a uniform appearance. Avoid overworking the material.

For decorative systems requiring a broadcast embedded into the coating (broadcast flakes, colored quartz, or other aggregates), begin promptly and complete the broadcast within the stated working time to ensure proper embedment.

### Application Tips

- Always use a high-quality, lint-free, solvent-resistant roller cover.
- Applying the material too thin may result in poor leveling and an uneven film.
- Back-roll in a single direction to ensure even texture and minimize roller marks.
- Limit brush application to cut-ins, small areas, touch-ups, and repairs.
- Use natural breaks (e.g., joints, walls, transitions) to divide floor sections and maintain clean start/ stop points.
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- Higher temperatures will reduce working time; plan application steps accordingly.
- If working time is exceeded, discard the material. Do not try to rework, thin, or add to a new mix.
- Maintain continuous ventilation during application and curing to aid solvent release and reduce odors.
- Replace roller covers frequently to avoid shedding and uneven texture.
- Use spiked shoes to move across the wet floor without disrupting the coating.
- If your application requires spraying, please contact your IntegraCoat Solutions representative for guidance.

TECHNICAL APPLICATION DATA	
Induction Period:	None
Thinner:	Not Recommended
Cleanup:	Clean all equipment immediately after use with acetone, xylene, or MEK

**PACKAGING**

3 Gallon Kit		Units Required
Resin (Part A):	2 gallons in a 3.5-gallon plastic pail	1
Hardener (Part B):	1 gallon in a 1-gallon metal can	1

  

15 Gallon Kit		Units Required
Resin (Part A):	5 gallons in a 5-gallon plastic pail	2
Hardener (Part B):	5 gallons in a 5-gallon plastic pail	1

  

157.5 Gallon Kit		Units Required
Resin (Part A):	52.5 gallons in a 55-gallon metal drum	2
Hardener (Part B):	52.5 gallons in a 55-gallon metal drum	1

**SYSTEMS**

- Clear
- Pigmented
- Quartz Single Broadcast System
- Quartz Double Broadcast System
- Flake Single Broadcast System
- Flake Double Broadcast System
- Metallic
- Shop Floor

For more information, or if these systems do not meet the needs of your project, please contact your IntegraCoat Solutions representative.

**LIMITATIONS**

- Do not apply over a wet surface.
- Epoxies have limited ultraviolet resistance which may cause them to chalk, lose gloss, and / or discolor over time.
- Touchup or repair of an existing coating is never aesthetically perfect.
- Depending on mix design and curing / drying conditions, minimum age of concrete prior to application is 28 days.

**STORAGE INFORMATION**

Store this product in accordance with applicable local, state, and federal regulations. Keep containers in a cool, dry, well-ventilated area away from heat, sparks, open flames, and other sources of ignition.

- Recommended Storage Temperature: 50°F to 95°F (10°C to 35°C)
- Shelf Life: 12 months from manufacture date (unopened, under recommended storage conditions)

**SHIPPING INFORMATION**

**DOT / IATA / IMDG Shipping Information:**

Resin (Part A):	UN3066, Paint Related Material, Corrosive, 8, III
Hardener (Part B):	UN3066, Paint Related Material, Corrosive, 8, III

**MAINTENANCE**

Allow the coating to fully cure before cleaning. Sweep regularly and mop as needed using a mild, pH-neutral cleaner. Avoid harsh chemicals, abrasive pads, or solvents that may dull or damage the surface. Test each cleaner in a small, inconspicuous area before applying it to the entire floor. Inspect the floor periodically and perform spot repairs as necessary.

For detailed maintenance guidance, contact your IntegraCoat Solutions representative.

## SAFETY

Before beginning any work, thoroughly review all applicable Safety Data Sheets (SDS), Product Data Sheets, and equipment manuals. Follow all instructions and safety precautions during storage, handling, surface preparation, and product application.

Improper use can present serious hazards to health and safety, including the risk of fire, explosion, chemical exposure, or respiratory illness. Always wear the appropriate personal protective equipment (PPE) when operating machinery or handling coatings or concrete.

Be especially cautious of concrete dust, which may contain crystalline silica and other hazardous materials that can cause silicosis or other serious illnesses if inhaled.

It is the responsibility of the installation company, general contractor, engineering firm, EPC contractor, and/or facility owner to ensure compliance with all applicable jobsite, local, state, and federal safety regulations.

For further guidance, refer to industry standard AMPP Paint Application Guide No. 10: Guide to Safety and Health Requirements for Industrial Painting Projects.

## WARRANTY

IntegraCoat Solutions warrants its products to be free from defects in material and workmanship. IntegraCoat Solutions' sole obligation and Buyer's exclusive remedy in connection with the products shall be limited, at IntegraCoat Solutions option, to either replacement of products not conforming to this Warranty or credit to the Buyer's account in the invoiced amount of the nonconforming products.

## LITERATURE REVISION:

### PDS: MPE Multi-Purpose Epoxy - Rev. 260224

Published literature is subject to change without notice. IntegraCoat Solutions is constantly engaged in the testing of existing formulations, the development of new innovative technologies, and the evaluation of the latest practices. The latest literature should always be consulted at [www.integracoat.com](http://www.integracoat.com)

## WARRANTY (CONTINUED)

Any claim under this warranty must be made by the Buyer to IntegraCoat Solutions 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, or one year from the ship date, whichever is earlier. Buyer's failure to notify IntegraCoat Solutions of such nonconformance as required herein shall bar Buyer from recovery under this warranty.

IntegraCoat Solutions makes no other warranties about the product. No other warranties, whether expressed, implied, or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply.

Any recommendation or suggestion relating to the use of the products made by IntegraCoat Solutions, whether in its technical literature, or in response to specific inquiry or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having requisite skill and know-how in the industry, and therefore it is for the Buyer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that Buyer has done so, at its sole discretion and risk. Variation in environment, changes in procedure of use, or extrapolation of data may cause unsatisfactory results.

## LIMITATION OF LIABILITY

IntegraCoat Solutions' liability on any claims based upon IntegraCoat Solutions' negligence or strict liability, for any loss or damage arising out of, connected with, or resulting from the use of the products, shall in no case exceed the purchase price allocable to the products or parts thereof which give rise to the claim. In no event shall IntegraCoat Solutions be liable for consequential or incidental damages.