

# TECHNICAL DATA SHEET

## Specialty Products Development Group informations

11530 Chairman Dr, Dallas, TX 75243  
927.293.4444  
contact@advancedresins.com

## PRODUCT DESCRIPTION

**Designer Metallic Epoxy** is a solvent-free, two-component epoxy coating system with low viscosity, resulting in vivid colors and a high-gloss finish. It boasts excellent appearance and chemical properties.

## ADVANTAGES

- Durable surface that resists bacteria and moisture, easy to clean.
- Multiple layers can be applied with outstanding adhesion.
- Solvent-free with minimal VOC content (VOC = 75.4 g/L), making it suitable for odor-free interior applications.
- Exceptional adhesive properties enable application over other solid coatings and a strong bond to the substrate.

## SURFACE PREPARATION

### Old concrete

Prior to product application, the concrete surface should be thoroughly cleaned, ideally through BLASTRAC, sand blasting, a diamond grinder with 30 grit or coarser, or water blasting to remove surface contaminants. Any oils and fats must be removed, and acid etching may be necessary to open the concrete's pores to accept a primer. Ensure the substrate is dry and check chloride, moisture, and pH levels before applying. In most cases, a primer is recommended before using **Designer Metallic Epoxy**.

### New concrete

Allow the concrete to cure for at least 30 days, with a minimum compression resistance of 25 MPa (3625 lb/inch<sup>2</sup>) after 28 days and traction resistance of at least 1.5 MPa (218 lb/in<sup>2</sup>). The surface laitance that appears during curing should be removed through BLASTRAC, sand blasting, a diamond grinder with 30 grit or coarser, or acid etching (followed by a thorough rinsing). A primer is advisable to reduce out-gassing and enhance adhesion.

## MIXING

Ensure materials are pre-conditioned to a minimum of 50°F (10°C) before use. Thoroughly mix each component separately. Combine component B into component A with the correct mixing ratio of 2A:1B by volume. Mix for at least 1 minute with a low-revolution drill (300 to 450 rpm) to minimize air entrapment. Scrape the bottom and walls of the container to ensure a uniform mix. Only prepare the quantity that can be applied within the mixture's pot life

## APPLICATION

Apply the mixed product tightly (as a thin film) on the prepared surface using a rubber rake and roll to achieve a uniform coating. Avoid forming puddles.

## CLEANING

Clean all tools and materials with an epoxy cleaner/thinner. Wash hands and skin thoroughly with warm soapy water. Once the product has cured, removal is possible only through mechanical means.

## RESTRICTIONS

- Substrate temperature should be between 50°F and 86°F (10°C and 30°C).
- Maximum relative humidity during application and curing should not exceed 85%.
- The substrate temperature must be at least 5.5°F (3°C) above the dew point.
- Substrate humidity content must be less than 4% during coating application.
- Avoid application on porous surfaces where moisture transfer may occur during application.
- Exterior use on ground-level substrates should be avoided.
- Protect the surface from humidity, condensation, and water contact during the initial 24-hour curing period.
- The surface may discolor when exposed to regular ultraviolet light.

## HEALTH AND SAFETY

In case of skin contact, wash with soap and water. In case of eye contact, rinse immediately with water for at least 15 minutes and consult a doctor. If respiratory issues arise, move the affected person to fresh air, remove contaminated clothing, and clean before reuse. Components A and B contain toxic substances, so avoid prolonged skin contact, eye contact, and inhalation of vapors. Use safety glasses, chemical-resistant gloves, and an NIOSH/MSHA-approved breathing apparatus with organic vapor filtration. Adequate ventilation is recommended.

Consult the material safety data sheet for more information.

## DISCLAIMER

All statements, recommendations, and technical information in this document are accurate to the best of Specialty Products Development Group's knowledge. This data applies solely to the specific material mentioned herein and may not be valid when used with other materials. Users are responsible for verifying the suitability of this information for their specific use and should conduct tests before use. Specialty Products Development Group accepts no legal responsibility except to replace the product or refund the purchase price as specified in the purchase agreement for any direct, indirect, consequential, economic, or other damages.

## PRODUCT INFORMATION

PACKAGING	3 US gal (11.35 L)		
COLOR	PART A: Clear PART B: Clear to amber		
RECOMMENDED THICKNESS	PRIMER		FINISH COAT
	SOLID COLOR	10 mils (150 ft <sup>2</sup> /gal)	16 mils (100 ft <sup>2</sup> /gal)
	FLAKES SYSTEM	10 mils (150 ft <sup>2</sup> /gal)	13 mils (120 ft <sup>2</sup> /gal)
	METALLIC SYSTEM	10 mils (150 ft <sup>2</sup> /gal)	40 mils (40 ft <sup>2</sup> /gal)
Shelf Life	12 months in original unopened factory sealed containers. Keep away from extreme cold, heat, or moisture. Keep out of direct sunlight and away from fire hazards.		
Mix Ratio, by volume	A:B = 2:1		
Mix Ratio, by weight	Clear: A:B = 100:41-48 Colors: A:B = 100:39-45 With quartz sand : A:B = 100:50 Mixture = 200		
Pot Life 16 oz (454 g)	40-50 minutes @ 77°F (25°C)		
OPEN TIME ON SUBSTRATE	45-60 minutes		
VOC	75.4 g/L		

## PRODUCT PROPERTIES

@ 73°F (23°C) AND 50% R.H.

Solids Content, by volume	100%		
Solids Content, by weight	100%		
Density (kg/L)	PART A	PART B	MIX
CLEAR	1.15	0.9 - 1.0	-
COLOURS	1.15	0.9 - 1.0	-
Thinner Recommended	Xylene		

Waiting Time/ Overcoatability	SUBSTRATE TEMPERATURE		MINIMUM	MAXIMUM
Before Applying Designer Metallic Epoxy over primer	> 50°F (10°C)		24 hours	3 days
	> 68°F (20°C)		12 hours	2 days
	> 86°F (30°C)		6 hours	1 day
Before Applying Second Coat of Designer Metallic Epoxy	> 50°F (10°C)		30 hours	3 days
	> 68°F (20°C)		24 hours	2 days
	> 86°F (30°C)		16 hours	1 day
Curing details	SUBSTRATE TEMPERATURE	FOOT TRAFFIC	LIGHT TRAFFIC	FULL CURE
	> 50°F (10°C)	30 hours	5 days	10 days
	> 68°F (20°C)	24 hours	3 days	7 days
	> 86°F (30°C)	16 hours	2 days	5 days
SERVICE TEMPERATURE	-4°F to 122°F (-20°C to 50°C)			

\* Times are approximate and will be affected by changing ambient conditions, especially changes in temperature and relative humidity.

Bond Resistance (psi), ASTM D4541	> 300 (substrate ruptures)
Permeability (%), ASTM D570	0.1%
Hardness (Shore D), ASTM D2240	85-90
Abrasive resistance, ASTM D4060 ( CS17 / 1000 cycles / 1000 g)	0.10 g
Viscosity @ 77°F (25°C)	Mix: 489 cPs
Traction Resistance (psi), ASTM D638	6500
Compressive Strength (psi), ASTM D695	14000
Flammability	Class I (Not considered Flammable, Flash Point > 199.4°F (93°C))
Elongation (%), ASTM D638	6.7
Resistance to Mold Growth, ASTM D3273	Rated 10 (highest resistance)
Resistance to Fungi Growth, ASTM G21	Rated 0 (no growth)

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