

485R Series Spray-Safe Dry-Fall 2-K High Build Epoxy DTM



485R Series is a 2-K surface tolerant modified polyamine epoxy Direct to Metal (DTM) Coating. Its overspray is designed to dry to a powder 10 feet from the point of application when reduced and within 20 feet without reduction. This allows painting to continue without worry of paint overspray damaging nearby equipment and vehicles. 485R Series may be applied over tightly bonded rust or mill scale and offers outstanding chemical, water, weathering, and corrosion protection. 485R Series also features an extended 60 day recoat window.

Tech Specs

Heat Resistance:	For Ambient Services Only
Vehicle Type:	Polyamine Epoxy
Reducer:	Not Normally Required
If desired in summer (80°F+):	Highland #30-E Reducer
If desired In Winter: (80°F-):	Highland #32-E Reducer
Mix Ratio:	4.5:1 (9:2) Base to Activator
Base:	485-R-####
Activator:	475-R-100
Pot Life:	3 Hours @ 77°F (Decreases in higher temperatures)
Volume Solids:	45%
Theoretical Coverage:	721ft ² /gal. @ 1 mil DFT
VOC:	335 g/L
Flash Point:	24°F (Lowest Flashing Component)
Dry Film Thickness:	4-5 mils DFT for normal conditions 6-8 mils DFT for immersion or other severe conditions.

Wet Film Thickness:	8.8-11.1 mils WFT per coat
Dry-time:	Normal
To Recoat:	1-2 Hours; Maximum – 60 Days
To Topcoat:	1-2 Hours; Maximum – 60 Days
Tack Free:	1 Hour
Complete Cure:	5-7 Days @ 77°F
Shelf Life:	2 Years Minimum
Finish:	Flat
Color:	Standard & Custom
Packaging:	1 & 5 Gallon Kits
Storage Temperature:	20°F - 110°F
Application Temp:	
Ambient:	45°F Minimum
Substrate:	40°F - 100°F

Surface Preparation

All surfaces should be clean, dry and free of all foreign contaminants.

A SSPC-SP1 Solvent Cleaning with Highland 901 Cleaning Solvent is recommended before blasting or other cleaning method.

Carbon Steel - Immersion:

Obtain a 2-3 mil angular blast profile using one of the recommended methods below.

Best: A SSPC-SP5/NACE 1 White Metal Blast Cleaning is recommended for maximum coating performance and longevity.

Good: A SSPC-SP10/NACE 2 Near White Metal Blast Cleaning provides good results.

Carbon Steel - Non-Immersion:

Obtain a 2-3 mil angular blast profile using one of the recommended methods below.

Best: A SSPC-SP6/NACE 3 Commercial Blast Cleaning provides good results.

Good: A SSPC-SP3 Power Tool Cleaning, SSPC-SP2 Hand Tool Cleaning, or waterjetting per SSPC-SP 12 to WJ-4 will provide good results.

Galvanized Steel:

Contact a Highland representative as recommendation will vary depending on substrate and exposure conditions.

Mixing & Application

Mixing: Highland 475R Series needs to be thoroughly mixed using mechanical agitation. Mix entire contents of Part "A" Activator (475-R-100) with Part "B" Base (485-R-####) (4.5:1 by volume). Allow a minimum 15 minute induction period before application.

Reduction: No reduction is necessary to achieve Dry-Fall properties at 20 ft. For Dry-Fall effect within 20 ft. you must reduce activated material 10%. Reduce with Highland 30-E reducer in temperatures 80°F and above or 32-E reducer in temperatures 80°F and below.

Dry-Fall Application Instructions: To assure Dry-Fall effect, do not apply in temperatures below 45°F, on surfaces below 40°F, or humidity above 85% Rh. When humidity is above 50%, take caution to observe the dry-fall range as it may extend slightly past the 20 foot mark, up to 50 feet depending on other weather variables. Make sure the equipment being used will give accurate psi readings so the pressure from the pump can be maintained at 1800 psi allowing a maximum +/- 25 psi for surges. Do not apply in temperatures that are 5°F or less from the dew point. Whip lines are not allowed unless they are 3/8 inch ID. Swivels are acceptable.

Highland 485R Series is designed for spray application. To ensure optimal performance and dry-fall properties, apply according to the following recommendations.

Airless

Gun: Graco 205-591 (or equivalent)

Pressure: Apply at 1800psi allowing for +/- 25 psi for surges

Tip sizes: 3.011-4.015

Hose: 3/8 inch ID

Airless Pumps: 30:1, 45:1, 60:1 (Gas Pumps are acceptable)

Brush or Roller: Four touchup only – Requires reduction with Highland 105 Brush & Roll Reducer.

Clean Up: Clean all equipment with Highland #901 Cleaning Solvent

If "Fingering" occurs during the spray application, increase the amount of thinner which will decrease the viscosity of the coating. Do not increase the pump pressure. Maintain 1800 psi allowing +/- 25 psi for surges.

Typical Systems

Direct-To-Metal:

Standard Service: Apply 4-5 mils DFT of 485R Series in a single coat at directly to prepared steel.

Immersion/Severe Service: Apply 6-8 mils DFT of 485R Series in a single coat at directly to prepared steel.

Primer/Topcoat:

Highland 485R Series may topcoated with variety of Highland Topcoats:

Apply 1 coat of 485R Series at 2-3 mils DFT as a primer then topcoat with one of the following options.

65R Series Topcoat

Dry-Fall gloss acrylic

68R Series Topcoat

Dry-Fall high gloss urethane

68R-CA Series Topcoat

VOC Compliant Dry-Fall gloss urethane

36 Series Topcoat

Non Dry-Fall Ultra-High gloss 2K urethane

Safety Information

- Use normal precautions such as gloves, facemasks and barrier creams.
- Adequate ventilation must be maintained. In confined areas, applicators must wear constant flow airline respirators.
- If product comes into contact with skin, wash thoroughly with lukewarm water or diluted Boric Acid, and obtain immediate medical attention.
- This product contains FLAMMABLE materials. Keep away from sparks and open flames. Observe NO SMOKING regulations.
- All electrical equipment and installations should conform to NEC regulations. In areas where explosion hazards exist, applicators should be required to use nonferrous tools, and to wear conductive, non sparking shoes.
- Observe low flash regulations.
- Refer to Safety Data Sheet (SDS) for complete safety instruction

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