

Part #DT2185P-FR
DESCRIPTION

DuraTite® 2185P-FR is a flame retardant, fast set, rapid curing, 100% solids, flexible, two component polyurea elastomer spray coating material. DuraTite® 2185P-FR is used by itself or in a combination with other materials to produce coatings, liners, wearing courses, and resilient surfaces on concrete substrates. Its extremely fast gel time makes it suitable for applications down to -20°F without special conditioning of the component resins and isocyanates. DuraTite® 2185P-FR produces an extremely tough film at all thicknesses. Single or multiple pass applications produce films from 10 mils to 1000 mils without appreciable sag or runs. DuraTite® 2185P-FR may be applied in all positions and to any suitably prepared substrate. DuraTite® 2185P-FR is inert, it will not hydrolyze, leach, or contaminate other materials, and is bondable and paintable. DuraTite® 2185P-FR is relatively moisture and temperature insensitive, allowing application in the most problematic ambient conditions.

TYPICAL USES

- Roofing
- Industrial Facilities
- Parking Garage Decks
- Warehouse Floors
- Walkways and Balconies
- Below Grade Waterproofing
- Above Grade Damp Proofing
- Manufacturing Facilities
- Water and Waste Water Treatment
- Cold Storage Facilities
- Food Processing Facilities
- Pulp and Paper Mills
- Bottling and Canning Facilities
- Freezers
- Secondary Containment
- Refineries
- Fertilizer and Other Process Plants
- Mining Operations
- Landfill Containment
- Airports

ADVANTAGES

100% Solids, Meets VOC Regulations, Flexible, 500-600% Elongation, Excellent Thermal Stability, Heat of Deflection 250°F, No Load, Glass Transition Temperatures -85°F and 450°F, Generally Suitable For Use When pH Ranges From 4-11, Good Resistance to a Wide Range of Chemical Attack, Non-Catalyzed, Non-Reactive, Low Permeance Rate, Seamless Elastomer, Remains Flexible in Cold Temperatures, Return Project to Service in 60 Minutes, Cures From -20°F to 225°F, Odorless, No Toxic Vapors, USDA Approved, is a Polyurea Formula that is Unlikely to Experience Moisture Sensitivity Issue Usually Associated with Hybrid Aluminized Formulas, and has Credentialed Fire Resistant Qualities Often Required For Roofing Applications

LIMITATIONS

DuraTite® 2185P-FR should not be used for direct contact, with extremely high or low pH attack. Composition systems are available.

CHEMICAL PROPERTIES*	TEST	Isocyanate (A)	Resin (B)
Specific Gravity (grams/cc)	ASTM D-792	1.12	1.06
Viscosity, cps		800-900	400-600
Solids by Volume/Weight		100%	100%
Volatile Organic Compounds		0 lbs/gal	0 lbs/gal
Mix Ratio, Parts Per Volume		1	1
Gel Time, Seconds		8±2	
Tack-Free, Seconds		40±10	
Shelf Life-Unopened Containers		12 months	12 months
Base Color		amber	brown

* Properties were tested at 77°F (25°C).

DURATITE® 2185P-FR

TYPICAL PHYSICAL PROPERTIES	TEST	RESULT
Hardness (Shore A)	ASTM D-2240	85±5
Tensile Strength (psi)	ASTM D-412	1650-1850
Elongation (%)	ASTM D-412	500-600
Tear Resistance lbs/in	ASTM D-624	325
Taber Abrasion Resistance (mg of loss/1000 cycles H-18 wheels)	ASTM D-4060	170-190
MVT, perms	ASTM E-96	0.025
Flammability	ASTM E-108	Pass**

** Class A @ 1:12 Slope Non-Combustible Substrate.

PROCESS TEMPERATURE AND ENVIRONMENT CONDITIONS

DuraTite® 2185P-FR must be spray-applied using approved equipment. The system settings required to achieve quality spray polyurea application will vary depending on environmental and substrate conditions. The following recommended parameters will help ensure optimum foam quality.

Iso (A) & Resin (B) Component	Hose Temperature	Processing Pressure	Relative Humidity
180°F (82°C)	180°F (82°C)	2000-3000 psi	<85%
Substrate Temperature	Substrate Moisture Content	Maximum Film Thickness	
0-120°F (0-48.9°C)	<15%	NA	

PREPARATION

Surface must be clean, dry and free of any mildew, oil, grease, dirt, loosely adhered materials, or other foreign contaminants that would prevent proper adhesion. Moisture content is critical to proper adhesion. If moisture content cannot be determined or exceeds 15%, a primer is recommended. Moisture effects the adhesion of the polyurea. Relative humidity must not exceed 85%. When heating a building, the relative humidity can change drastically and should be constantly monitored. Substrate priming is not required on all substrates. For detailed preparation and installation procedures, refer to Rhino Linings Corporation Technical Service specifications for DuraTite® 2185P-FR.

COVERAGE RATES

Theoretical Square Feet Per Gallon:

Mils	10	15	50	60	80	100	125
Square Feet	160	107	32	27	20	16	13

Note: 1604 mil inches per gallon. Totally dependent on substrate texture and condition.

HOW SUPPLIED

One Hundred Gallon Kit: 50 gallons of 'A' side and 50 gallons of 'B' side.

Ten Gallon Kit: 5 gallons of 'A' side and 5 gallons of 'B' side.

MIXING INSTRUCTIONS

DuraTite® 2185P-FR must be spray applied using approved equipment. Use 1:1 ratio pump, with appropriate material heaters, as required for individual application. For information contact Rhino Linings Corp. Technical Service.

COLOR OPTIONS

Standard color is charcoal aluminized. Other colors available upon request. The aluminized version of DuraTite® 2185P-FR is particularly suited for roofing applications.

STORAGE

One year, in original, unopened factory containers, under normal storage conditions of 55-95°F (12-35°C).

DISPOSAL AND CLEAN-UP

Cured product may be disposed of without restriction. Excess liquid 'A' and 'B' material should be mixed together and allowed to cure, then disposed of in the normal manner. Product containers that are "drip free" may be disposed of according to local, state and federal laws.

RECOMMENDED SAFETY EQUIPMENT

Basic safety for personal protection is: Long-sleeve overalls or disposable TYVEK overalls. Rubber gloves. Splash shield or safety glasses with splash guards. Rubber or leather boots. Do not use near high heat or open flame. Do not take internally. Keep out of the reach of children.

SAFETY PRECAUTIONS

Health Considerations: Consult the Rhino Linings® Safety Data Sheet (SDS).

This chemical system requires the use of proper safety equipment and procedures. Please follow the Rhino Linings® product SDS for detailed information and handling guidelines.

For Your Protection: The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning the products and their uses, applications, storage, and handling are only the opinion of Rhino Linings Corporation. Users should conduct their own tests to determine the suitability of these products for their own particular purposes and of the storage and handling methods herein suggested. The toxicity and risk characteristics of products made by Rhino Linings Corporation will necessarily differ from the toxicity and risk characteristics developed when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to end users and processors.

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