

## **DuraTite® 2185P**

### **DESCRIPTION:**

DuraTite® 2185P is a fast set, rapid curing, 100% solids, flexible, two component polyurea elastomer spray coating material. DuraTite® 2185P is used by itself or in combination with other materials to produce coatings, liners, wearing courses, and resilient surfaces on concrete substrates. It's extremely fast gel-time makes it suitable for quick return to service. DuraTite® 2185P 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 may be applied in all positions and to any suitably prepared substrate. DuraTite® 2185P is inert, it will not hydrolyze, leach, or contaminate other materials, and is bondable and paintable. DuraTite® 2185P is relatively moisture and temperature insensitive, allowing application in the most problematic ambient conditions.

### **TYPICAL USES:**

DuraTite® 2185P is a superior coating material designed specifically for industrial applications receiving constant or intermittent attack from contained materials, subsurface hydrostatic pressure, most corrosive substances, and abrasive action. DuraTite® 2185P is flexible, accommodating movement of the substrate, yet strong enough to remain intact under all conditions except major structural dislocations. With or without reinforcements DuraTite® 2185P may be used in transitional areas with confidence. DuraTite® 2185P may be used in interior or exterior applications. DuraTite® 2185P is recommended for repair of other films, new construction and in cold weather conditions, cold storage facilities, freezers, and food processing plants where time and temperature are serious concerns. DuraTite® 2185P is ideal for roofing applications where roofs are subjected to high foot traffic, hail or ice damage, or environmental chemical attack such as acid rain. It is also well suited for roof related walkways and balconies.

### **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-catalysed, Non-reactive, Low Permeance Rate, Seamless Elastomer, Remains Flexible in Cold Temperatures, Return Project to Service in 60 Minutes, cures from 40° F to 225° F, Odorless, No Toxic Vapors, USDA Approved.

### **LIMITATIONS:**

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

| <b>CHEMICAL PROPERTIES:</b>      | <b>Test</b> | <b>Isocyanate (A)</b> | <b>Resin (B)</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                |             | 20 – 30 @180°F (82°C) |                     |
| Tack-free, Seconds               |             | 40 – 70 @180°F (82°C) |                     |
| Shelf Life - Unopened Containers |             | 12 months             | 12 months           |
| Base Color                       |             | amber                 | charcoal aluminized |

| <b>TYPICAL PHYSICAL PROPERTIES:</b>                            | <b>Test</b> | <b>Result</b> |
|----------------------------------------------------------------|-------------|---------------|
| 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 E96    | 0.025         |

#### PROCESS TEMPERATURE AND ENVIRONMENT CONDITIONS:

DuraTite® 2185P 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 |
|-------------------------------|----------------------------|------------------------|-------------------|
| 160 to 170°F (71 - 76°C)      | 160 to 170°F (71 - 76°C)   | 2000 – 3000 psi        | <85%              |
| Substrate Temperature         | Substrate Moisture Content | Maximum Film Thickness |                   |
| 40 to 120° F (4 – 49° 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%. 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.

#### MIXING INSTRUCTIONS:

DuraTite® 2185P 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.

#### 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.

**STORAGE:**

DuraTite® 2185 One year, in original, unopened factory containers, under normal storage conditions of 55°F to 95°F.

**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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