

**DURA 500 LIQUID RUBBER THERMOPLASTIC ROOF COATING SYSTEM  
BY SUPERIOR POLYMERS INC.**

**SPECIFICATION GUIDELINE FOR  
DURA 500 LIQUID RUBBER THERMOPLASTIC ROOF COATING  
AS APPLIED TO METAL SLOPED ROOFING**

**Part 1 – General Information**

For the purpose of clarification in this document, the terms “Product” and “coating system” refer to Dura 500 Liquid Rubber Roof Coating, the term “Manufacturer” refers to Superior Polymers Inc., and the term “Contractor” refers to the applicator who installs the Product. The term “End User” shall refer to the person, persons or Corporation who owns the building on which the Product is being installed and/or the party who is purchasing the installation.

**PRODUCT TECHNICAL SPECIFICATIONS - DURA 500 LIQUID RUBBER ROOF COATING**

Color: Bright, reflective white  
Weight per US Gallon: 10.32 lbs. (1.238 kg/L)  
Reflectivity: (ASTM C1549) 90  
Emissivity: (ASTM C1371) 88  
Solids: (ASTM D2697) 41.6 by volume  
Tensile Strength: (ASTM D2370) 1900 psi<sup>2</sup> @ 23°C  
Elongation: (ASTM D2370) 800% @ 25°C  
Flexibility: (ASTM D522) 1/2” mandrel bend @ -36°C  
Permeance: 20 mils (ASTM D1653) 0.01  
Water Swelling: (ASTM D471) 0%  
Fungi Resistance: (ASTM G21) Zero Growth  
Viscosity: 12,000 cps @25°C (77°F)  
Coverage: (20 mils DFT) 42 sq ft/gal\*\*  
Service Temperature: -70°F (-57°C) to 170°F (77°C)  
Drying Time before re-coat: 24 hours  
Burning Characteristics: E84/ CAN/ULC S102 Class A  
Clean-up Solvent: Mineral Spirits or Xylene  
Packaging: 1 US gal. Cans, 5 US gal. pails

**\*\*PLEASE NOTE: THE SIZE AND SPACING OF RIBS ON METAL ROOF SURFACES CAN SIGNIFICANTLY INCREASE THE AMOUNT OF MATERIAL REQUIRED TO PROVIDE A MANDATORY 20 MIL DRY FILM THICKNESS. PLEASE PROVIDE SIZE AND SPACING MEASUREMENTS AND SUPERIOR POLYMERS INC. WILL BE ABLE TO DETERMINE MATERIAL REQUIREMENTS MORE ACCURATELY.**

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**1.0 Scope**

The Contractor shall provide all labour, materials and equipment necessary to complete the installation of the Dura 500 Liquid Rubber Roof coating system. The Manufacturer's most current product data sheet and installation instructions shall be observed in conjunction with this specification. All conditions of this specification must be followed in order to obtain a valid Dura 500 Liquid Rubber Roof Coating - 15 Year Product Guarantee. Guarantees for all labour, workmanship, subcontractor services and subsequent inspection programs regarding the application of the Product are the sole responsibility of the Contractor.

**1.1 Submittals**

(a) The Contractor shall submit to the End User, Product Data sheets confirming physical and performance properties of the Product.

(b) The Contractor shall submit to the End User, Material Safety Data Sheets for all products used in the installation.

(c) The Contractor shall identify the End User and submit a roof survey to the Manufacturer and the End User, including roof measurements and detailed description of the condition of seams, penetrations, drains, gutters, and known leaks. The Contractor shall provide photographs of all the foregoing to the Manufacturer.

**1.2 Quality Assurance**

(a) The Manufacturer shall be the sole supplier of Product.

(b) The Manufacturer shall maintain batch records of all Products supplied to the Contractor.

(c) The Contractor must be an approved applicator of the Product.

(d) Immediately after job completion, the Contractor shall submit a guarantee application accompanied by all the documentation as laid out in item 1.1 (c) above.

(e) The Contractor shall provide all insurances, licenses, permits and certifications as required by local authorities and/or the End User.

**1.3 General Conditions**

(a) The roof must be free of water, ice, snow, rain, dew, oils, grease, dirt, leaves and particulate matter.

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(b) Roof insulation must be dry and/or vented in accordance with associated supplier's instructions.

(c) The roof surface must be a minimum of 36°F (2.2°C) at time of application to ensure that frozen condensation is not present on the roof surface. To avoid blistering and pinholes, do not apply the Product if roof temperatures exceed 100°F (37.7°C). Do not apply the Product if temperature is within 5 degrees of the dew point.

**1.4 Material Handling, Storage & Safety Considerations**

(a) The Product should be stored at a temperature of 50°F (10°C) minimum for at least 24 hours prior to application to optimize flow and spread rate.

(b) The Product should be mixed prior to application using a mechanical mixer to make sure it is fully homogenized. Solids in the Product can settle over time.

(c) Consult material safety data sheets for all materials before using. Wear NIOSH approved respirator, nitrile gloves, and chemical safety glasses with side splash guards when working with coating or solvents.

(d) Extinguish all sources of ignition prior to opening, mixing or applying this product.

**Part 2 - Materials**

**2.0 Materials**

(a) High quality de-greaser detergent for use with pressure washers

(b) Superior 450 Detailing & Seam Sealer, a thermoplastic brush and trowel grade coating

(c) Superior 6.150 Spunlace Polyester Roof Fabric

(d) Dura 500 Liquid Rubber Roof Coating

(e) Tools & Equipment: Pressure washer capable of at least 3000 psi, ¾ to 1 ¼ nap rollers with 72" handles, 4" brushes, roofer's trowels, scissors for roof fabric, ½" power drill with mixing attachment, Graco 833 or similar, high pressure airless sprayer with ¾" hoses, 25' whip, mastic guns with .035 tip size and 12 to 14" fan width. In cold weather, you may require in-line heaters to raise Product temperature to a minimum of 70°F (21°C).

(d) NIOSH approved respirator for solvents, rubber or nitrile gloves, chemical safety glasses with side splash guards.

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**Part 3 – Execution**

**3.0 Inspection**

Before beginning work, the Contractor shall conduct a final inspection of the roof surface and report to the Manufacturer, any changes in the roof condition not reported in the original survey.

**3.1 Conditions & Remedies**

**WARNING: SUPERIOR POLYMERS INC. CAN NOT GUARANTEE ADHESION TO PREVIOUSLY APPLIED ROOF COATINGS AS THERE IS NO WAY OF KNOWING IF OUR COATING IS COMPATIBLE WITH THEM. IN PARTICULAR, DO NOT APPLY DURA 500 OVER WATER-BASED ACRYLIC COATINGS. ADHESION TESTING IS HIGHLY RECOMMENDED PRIOR TO COMMENCING WORK. READ AND UNDERSTAND MATERIAL SAFETY DATA SHEETS PRIOR TO COMMENCING WORK. EXTINGUISH ALL SOURCES OF IGNITION PRIOR TO COMMENCING WORK. DO NOT ALLOW SMOKING ON OR NEAR JOBSITE.**

- (a) The roof assembly must be structurally sound and free of loose coatings, improperly adhering caulks and sealants, buckling, loose or missing fasteners or other serious defects. Any serious defects shall be remedied prior to installation of the coating system.
- (b) Drains must be installed as to allow positive drainage of the roof surface. No areas shall retain water more than 48 hours or at depths exceeding 1/4 inch at any time. Retained water may not cover more than 5% of the roof's surface area. Corrections should be made to conform with good roofing practices in accordance with NRCA/CRCA guidelines.
- (c) Fasteners shall be inspected and tightened or replaced with larger ones if necessary.
- (d) Curbs and penetrations must not interrupt the flow of water off of the roof.
- (e) Insulation that is softened or water-soaked must be removed and replaced with the original or new compatible material.
- (f) Flashings shall be properly terminated according to NRCA/CRCA guidelines. Defective terminations shall be remedied. Flashings that are shrunken, taught or tented shall be replaced prior to installation of the coating system.

**3.2 Surface Preparation**

- (a) The roof surface shall be cleaned with a good quality de-greaser/detergent and a pressure washer capable of at least 3000 psi. If required, agitate roof surface with stiff bristle broom or orbital scrubber.

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(b) Rinse the roof surface with clean water and a minimum 3000 psi power washer until no detergent residue remains. Use caution to avoid saturating roof. Allow roof to dry completely prior to system installation.

### **3.3 Seam & Flashing Reinforcement**

(a) All faulty seams shall be reinforced with Superior Spunlace Polyester Roof Fabric. Apply Dura 500 Liquid Rubber Roof Coating at 1 gallon per 100 square feet and immediately embed fabric. Dry brush the fabric until smooth. Allow a minimum of 3 hours dry time. Apply an additional coat of Dura 500 Liquid Rubber Roof Coating on top of the fabric to fully encapsulate it. Allow 24 hours before top coating.

(b) Penetrations that cannot be sealed with reinforcing fabric due to their shape or location shall be reinforced with Superior 450 Detailing & Seam Sealer. Apply with a brush or trowel 1/8 inch thick to 1/4 inch thick and taper all edges. Allow 24 hours before top coating.

### **3.4 Coating Installation**

**IMPORTANT: Extinguish all sources of ignition. Do not allow smoking on or near jobsite.**

(a). Remove any contamination or debris that has accumulated on the roof after cleaning.

(b) Apply a base coat of Dura 500 Liquid Rubber Roof Coating at the rate of 1.2 gallons per 100 square feet. When spraying, use a multi-pass technique for even coverage. Protect unintended surfaces from overspray. Allow to dry tack free, minimum 3 hours.

(c) Apply a finish coat of Dura 500 Liquid Rubber Roof Coating at the rate of 2 gallons per 100 square feet. When spraying, use a multi-pass technique for even coverage. Protect unintended surfaces from overspray.

(d). All areas that retain any water must receive a third coat of Dura 500 Liquid Rubber Roof Coating at the rate of 1.5 gallons per 100 square feet.

### **3.5 Inspection**

Inspect the roof for even and adequate coverage. Dry film thickness of the coating should be a minimum 20 mils. Areas of under-application shall receive an additional coat in order to meet the minimum film thickness requirements.

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**Part 4 - Guarantees**

(a) Issuance of the Dura 500 Liquid Rubber Roof Coating 15 year guarantee will be dependent upon completion of the project to the satisfaction of Superior Polymers Inc. Issuance of the warranty does not constitute a waiver of the limitations set forth in Sections 1.2 and 3.1 of this document or the conditions and limitations expressed on the guarantee itself. Guarantee forms must be completed and submitted to Superior Polymers Inc. upon completion of the project. At least five photos of the roof, showing roof penetrations, problem seams, flashing condition, and ponding areas must be taken and submitted to Superior Polymers Inc. prior to commencing work.

(b) 15 Year Guarantee

Dura 500 Liquid Rubber Roof Coating is guaranteed not to chalk, crack or peel for a period of 15 years from the date of application, provided that the roof preparation and coating instructions are completed in accordance with our Specification Guideline. Superior Polymers Inc., accepts no responsibility for any applicators inability to detect and properly seal leaks. To ensure good adhesion and leak protection, proper cleaning, surface preparation and coating methods must be used, and these methods are the sole responsibility of the applicator. Applicators are responsible for all warranties pertaining to workmanship, surface preparation, structural roof repairs, installation of Dura 500 Liquid Rubber Roof Coating, and any subsequent inspection and maintenance programs. Ponding water issues must be corrected in accordance with good roofing practices. If the coating does not perform as stated during the guarantee period, Superior Polymers Inc. will provide the original purchaser with replacement coating to repair the affected part of the coating. Failures due to acts of God, fire, structural defects, mechanical damage, intentional or accidental, are excluded from this guarantee. Superior Polymers Inc. is not responsible for any labor, property or other consequential damages or costs incurred in the original or any replacement application. Except as stated above, we make no warranties or guarantees, expressed or implied, and none should be inferred.