

SECTION 07750

ELASTOMERIC COATING

PART I GENERAL

1.01 SECTION INCLUDES:

- A. Preparation of modified bitumen roof system to receive elastomeric coating.
- B. Application of PMMA coating to prepared modified bitumen substrate.

1.03 REFERENCE STANDARDS

References in these specifications to standards, test methods and codes, are implied to mean the latest edition of each such standard adopted. The following is an abbreviated list of associations, institutions, and societies which may be used as references throughout this specification section.

ASTM	American Society for Testing and Materials, Philadelphia, PA
NRCA	National Roofing Contractors Association, Rosemont, IL
OSHA	Occupational Safety and Health Administration, Washington, DC
UL	Underwriters Laboratories, Northbrook, IL
USEPA	United States Environmental Protection Agency, Washington, DC
USGBC	United States Green Building Council, Washington, DC

1.04 SUBMITTALS

- A. Submit product data sheets verifying physical and mechanical properties of the coating material.
- B. Submit material safety data sheets for the elastomeric coating material and accessory products to be using in conjunction with the coating application.

1.05 QUALITY ASSURANCE

- A. Product Quality Assurance Program: The coating shall be manufactured under a quality management system that is monitored regularly by a third party auditor under the ISO 9001 audit process.
- B. Scope of Work: Furnish competent and full time supervision, experienced roof mechanics, all materials, tools, and equipment necessary to complete, in an acceptable manner, the coating installation in accordance with this specification. Comply with the latest written application instructions of the coating manufacturer.
- C. Local Regulations: Conform to regulations of public agencies, including any specific requirements of the city and/or state of jurisdiction.

1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Containers and Packaging: Deliver materials in original sealed containers, clearly marked with manufacturer's logo, full product name; and lot number(s).
- B. Storage: Store closed containers in a well ventilated, cool, dry area away from heat, direct sunlight, oxidizing agents, strong acids, and strong alkalis. Do not store resins or catalyst at temperatures below 32°F (0°C) or above 85°F (29°C). Keep away from open fire, flame or any ignition source. Exposure of product to temperatures outside this range may affect product shelf life and quality of finished product.
- C. Handling: Handle all materials in such a manner as to preclude damage and contamination with moisture or foreign matter. Keep away from open fire, flame, or any ignition source. Vapors may form explosive mixtures with air. Avoid skin and eye contact with this material. Avoid breathing fumes when above the Threshold Limit Value (TLV). Do not eat, drink, or smoke in areas where roofing materials are stored or applied. Protect the pails of elastomeric coating from temperatures outside the range described in 1.06-B and other damage during transit, handling, storage, and installation.

1.07 PROJECT CONDITIONS

- A. Surface Conditions: Do not apply materials unless surfaces to receive the coating are clean, dry and prepared as specified.
- B. Coating Manufacturer/Regulatory Agency Requirements: Install the coating in strict accordance with all published safety, weather, or applicable regulations of the manufacturer and local, state, federal agencies which have jurisdiction. Follow the coating supplier's application guidelines at all times.
- D. Ensure that the membrane/flashing system to be coated is properly adhered to the substrate, free from blisters/air pockets/wrinkles and in a water-tight condition suitable to receive the coating. Repairs and remedial work shall be performed in accordance with the membrane manufacturer's specifications/details. Allow solvent-based adhesives to cure before coating application.
- E. Verify that penetrations, mechanical equipment, cants, edge metal, flashings and other on-roof items are properly installed. Verify that drainage outlets are clean and in working order.
- F. Verify that HVAC and air intake vents are suitably protected, closed or filtered.
- G. Do not apply catalyzed resin materials if there is a threat of inclement weather or if the ambient temperature is less than 32°F (0°C) or greater than 95°F (35°C). Ensure that the substrate temperature is between 32°F (0°C) and 104°F (40°C) during coating application. Regularly utilize an infrared thermometer to monitor substrate temperatures and record both ambient and substrate temperatures during coating application on an hourly basis. Maintain a record of the temperature readings.
- H. Safety: Familiarize every member of the application crew with all fire and safety regulations recommended by OSHA, NIOSH, NRCA and other industry or local governmental groups. Workers shall wear a long sleeve shirt with long pants and work boots. Workers shall use butyl rubber or nitrile gloves when mixing or applying PMMA products. Safety glasses with side shields are required for eye protection. Use local exhaust ventilation to maintain worker

exposure below the published Threshold Limit Value (TLV). If the airborne concentration poses a health hazard, becomes irritating or exceeds recommended limits, use a NIOSH approved respirator in accordance with OSHA Respirator Protection requirements published under 29 CFR 1910.134. The specific type of respirator will depend on the airborne concentration. A filtering face piece or dust mask is not appropriate for use with this product if TLV filtering levels have been exceeded.

1.08 GUARANTEE

A. Elastomeric Roof Coating Warranty: Upon successful completion of the project, and after all post installation procedures have been completed, furnish the Owner with the manufacturer's 10-year limited materials warranty. The warranty shall offer replacement product in the event that material requires remediation as a result of the following causes:

1. Deterioration of the coating materials resulting from ordinary wear and tear by the elements.
2. Deterioration of the coating materials resulting from manufacturing defects in said materials.

Siplast 10-year Paracoat Materials Warranty

PART II PRODUCTS

2.01 COATING SYSTEM/PRODUCTS

A. PMMA Coating System: A multi-component, elastomeric coating system composed of PMMA and other polymers designed for application by roller over qualified and prepared roof systems.

Paracoat Roof Coating by Siplast; Irving, TX

B. Bleed-Blocking Primer: A fast-curing, PMMA-based primer for use over qualified SBS modified bitumen sheets, asphaltic sheets and asphalt residue.

Pro Primer R by Siplast; Irving, TX

C. Cleaning Solution/Solvent: A clear solvent used to clean and prepare transition areas of in-place catalyzed resin to receive subsequent coats of resin and to clean substrate materials to receive resin.

Pro Prep by Siplast; Irving, TX

2.02 RELATED/ACCESSORY MATERIALS

A. Substrate Cleansing Agent: A concentrated, non-corrosive, biodegradable, water-soluble cleaner used to prepare membrane surfaces prior to elastomeric coating application.

B. Cleaning Solution/Solvent: A clear solvent used to clean and prepare transition areas of in-place catalyzed resin to receive subsequent coats of resin, clean tools and equipment, and remove resin residue.

Pro Prep by Siplast; Irving, TX

PART III EXECUTION

3.01 SUBSTRATE EXAMINATION

- A. Substrate Inspection: Inspect the substrate to receive the coating to ensure that surfaces are clean, smooth, sound, and free of moisture, dirt, debris, or contamination. Verify that roof penetrations, mechanical equipment, cants, edge metal, and related on-roof items are properly installed, secure and in a condition suitable for coating application.. Verify that air conditioning and air intake vents are suitably protected or closed.
- B. Protection Of Surrounding Areas: Protect areas surrounding the area to receive the elastomeric coating by application of masking tape.

3.02 SUBSTRATE PREPARATION

- A. Preparation and Repairs of Membrane/Flashing System to be Coated: Repair damaged or deteriorated areas of the existing membrane/flashing system using materials to match the existing according to the membrane manufacturer's specifications. Ensure that the roof system is in a watertight condition.
- B. Surface Cleansing: Clean the surface of the existing roof, ensuring that the surface is clean, sound, dry and free of any contaminating materials that would interfere with proper adhesion of the coating. This may require power-brooming, power vacuuming, manual brooming or a low-pressure wash/scrub with detergent. If washed, rinse the substrate with copious amounts of clean water to remove residue and allow to dry before application of primer or coating materials.

3.03 MIXING OF RESIN PRODUCTS

- A. Preparation/Mixing/Catalyzing Resin Products: Pour the desired quantity of resin into a clean container and using a spiral mixer or mixing paddle, stir the liquid for the time period specified by the resin manufacturer. Calculate the amount of catalyst powder needed using the manufacturer's guidelines and add the pre-measured catalyst to the resin component. Mix again for the time period specified by the resin manufacturer, ensuring that the product is free from swirls and bubbles. To avoid aeration, do not use a spiral mixer unless the spiral section of the mixer can be fully contained in the liquid during the mixing process. Mix only enough product to ensure that it can be applied before pot life expires.

3.04 APPLICATION OF RESIN PRODUCTS

- A. Primer Application: Apply catalyzed primer resin using a roller at the rate specified by the primer manufacturer for the specific substrates. Do not let the primer pool or pond. Do not under-apply or over-apply as this may interfere with proper primer catalyzation. Make allowances for waste, including saturation of roller covers.
- B. Preparation of Previously Applied Primer or Coating: Before application of coating over cured primer or previously applied coating, wipe the surface of the cured resin using the specified

cleaner/solvent and allow to dry. Treat the surface again if not followed up by coating application within 60 minutes.

- C. Coating Application: Apply an even, generous layer of coating over the prepared roof surface using a crosshatch technique at the rate specified by the coating manufacturer. The finish hatch direction shall be perpendicular to the underlying sheets of applied roofing to minimize bridging and the resulting over application of resin between laps.
1. Cut-in perimeter areas, penetrations and edges in a uniform manner so as to provide an aesthetically pleasing appearance.
 2. Make allowances for waste, including saturation of roller covers. Dispose of roller covers regularly to avoid curing of the resin saturating the cover.
 3. Avoid heavy puddles of coating and ensure that the coating is never applied at less than the minimum rate to ensure proper catalyzation/cure.
 4. Monitor pot life, and if insufficient to allow for full-batch application, maintain liquid resin at a lower storage temperature and work in smaller batches.

3.05 PROTECTION/CLEANING

- A. Protect surfaces not intended to receive the coating during the application of the system. Should this protection not be effective, or not be provided, the respective surfaces shall be restored to their proper conditions by cleaning, repair or replacement.

END OF SECTION