

Typical Specification Outline

PROTECTIVE COATING FOR CONCRETE

PART 1 GENERAL

SCOPE

The concrete surfaces shall include precast and cast-in-place manholes, sewer pipe, chambers, and structures. This section includes the spray installation/application of Sherwin-Williams® brand polyurea, Elastogard™ Arc Aromatic polyurea spray for concrete or equivalent.

SUBMITTALS

Submittals shall be in accordance with the requirements of the governing municipal authority or owner and shall include:

1. Shop Drawings for Review:

Contractor must indicate variances from requirements of Contract Documents. Applicable Product literature to be provided.

2. Information for the Record:

Material certification.

Manufacturer's surface preparation, mixing, application and curing instructions.

DELIVERY, STORAGE, AND HANDLING

A. Materials shall be stored per manufacturer's recommendations in enclosed, dry space protected from weather and out of direct sunlight. Temperature of storage area shall be maintained between 40°F and 90°F.

PROJECT CONDITIONS

A. Surfaces to receive polyurea coating shall have temperature between 30°F and 90°F. Coating shall not be applied when surface temperature is less than 5°F above dew point.

SCHEDULING AND SEQUENCING

A. Surfaces to be coated shall have a minimum cure time of 30 days prior to application of coating.

PART 2 PRODUCTS

COATING SYSTEM PRODUCT

A. Two component polyurea, 100 percent solids as manufactured by Sherwin-Williams® or Elastomer Specialties, Inc. or approved equal.

PART 3 EXECUTION

SURFACE PREPARATION

A. Hydroblast or dry media blast surfaces to be coated to remove any laitance, mineral deposits, contaminants or weak surface material, leaving a sound surface with adequate profile surface porosity. Take precautions to avoid losing any media or dislodged structural debris in invert. Remove any spent media.

Identify all leaks or inflow sites and repair by drilling through the structure wall and injecting S-W hydrophilic grout, ESI hydroloc or equivalent.

Fill any large voids in the riser area that are not readily available to be eliminated by the coating process by applying an epoxy/sand mortar mix or a polymer modified hydraulic cement.

Inspect the area between the cover frame and cone section and remove all loose mortar displaced gasket material. Fill and level entire void with a 100 percent solids, high elongation polyurea, S-W elastogel, or equivalent to create a formed in place impact barrier.

All surfaces must be dry prior to product application. Contractor may expedite the process using forced air ventilator and/or electric heated blower, if acceptable to manufacturer.

APPLICATION

A. Contractor to follow manufacturer's recommended procedure, including preparatory work.

Apply approximately 10 mil of waterborne epoxy primer S-W brand, ESI Poxyprieme H2O or equivalent. Allow to dry until the surface is residue free when touched. Contractor may expedite process using a forced air ventilator and/or electric heated blower, if acceptable to manufacturer.

Apply approximately 125 mil of 100 percent solids Sherwin-Williams polyurea, ESI Arc, DLX or equivalent.

CRITICAL NOTE: Robotic, 360° constant high pressure rotary application of these materials is required to ensure uniformity of mil thickness throughout the structure. Hand-troweling, brushing, or similar methods of application shall not be acceptable.

WARRANTY

A. Product manufacturers shall warrant all materials to be free of defects, product design and workmanship for a period of two years from date of

installation. Manufacturer will provide replacement materials for any product proven to be defective when applied in accordance with

Manufacturer's recommendations. Manufacturer's obligation shall be limited solely to product replacement.

SPEC for Protective Coating for Concrete