

Typical Specification Outline

RESTORATION AND PROTECTIVE COATING FOR MANHOLES

PART 1 GENERAL

SCOPE

The surfaces shall include brick-lined and precast manholes, sewer pipe, chambers, and structures. This section includes the high pressure spray installation/application of Sherwin-Williams® Polyurea, Elastogard™, Arc Aromatic Polyurea 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.

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 and surface porosity. Take precautions to avoid losing any media or dislodged structural debris in invert. Removal of 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.

Replace any loose brick and fill any large voids by applying by trowel an epoxy/sand mortar mix
or polymer modified hydraulic cement.

Fill and level entire void with a 100 percent solids, high elongation polyurea, S-W elastogel, or equivalent to create a uniform 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.

B. Apply approximately 10 mil of waterborne epoxy primer ESI Poxypriime H2O or equivalent. Allow to dry until the surface is residue free when touched. Contractor may expedite the 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 Manufacturerís recommendations. Manufacturerís obligation shall be limited solely to product replacement.

SPEC for Restoration and Protective Coating for Manholes