

**SECTION 07 90 00
SEALANTS AND JOINT FILLERS - EXTERIOR**

SECTION 07 90 00

SEALANTS AND JOINT FILLERS

PART 1 GENERAL

3.01 REFERENCE STANDARDS

- A. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications; 2024.

3.02 GENERAL REQUIREMENTS

ALL WORK SHALL CONFORM TO THE LATEST INDUSTRY PRACTICES AND STANDARDS AS APPLICABLE. INSTALL ALL MATERIALS AS PER MANUFACTURER'S INSTRUCTIONS.

ALL WORK SHALL BE PERFORMED BY COMPETENT WORKERS TRAINED AND EXPERIENCED IN THEIR PARTICULAR TYPE OF WORK.

COORDINATE THE WORK OF THIS SECTION WITH OTHER RELATED SECTIONS / DIVISIONS.

SCOPE OF WORK

EXTERIOR SEALANT: PROVIDE A CONTINUOUS BEAD OF SEALANT; MATCHING COLOR OF EXISTING SEALANT; TO PREVENT WATER INFILTRATION THROUGH JOINTS BETWEEN EXISTING/REPLACED BRICKWORK AND WINDOWS AND DOORS, AT ALL EXPANSION JOINTS BETWEEN INCINERATOR STACK AND BULKHEAD WALL AT LOCATIONS AS SHOWN ON THE CONTRACT DOCUMENTS.

RELATED WORK

INSTALL WORK FURNISHED UNDER OTHER SECTIONS, OF WHICH MUST BE BUILT INTO UNIT MASONRY WORK, INCLUDING, BUT NOT LIMITED TO:

SECTION 04 01 20 – MASONRY RESTORATION

SECTION 08 11 13 – EXTERIOR HOLLOW METAL DOORS

SECTION 08 51 00 – METAL WINDOWS & FRAMES

REFERENCES -- GENERAL

UNDERWRITERS LABORATORIES (UL) - ROOFING SYSTEMS AND MATERIALS GUIDE (TGFU R1306).

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) - ANNUAL BOOK OF ASTM STANDARDS.

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE).

SUBMITTALS.

MANUFACTURER'S PRODUCT SHEETS INCLUDING ASTM NUMBERS FOR NONSTRUCTURAL AND EXTERIOR TYPE SEALANTS FOR EACH PRODUCT SPECIFIED IN PART 2 - PRODUCTS.

REGULATORY REQUIREMENTS.

ALL WORK SHALL BE PERFORMED IN A SAFE, PROFESSIONAL MANNER, CONFORMING TO ALL FEDERAL, STATE, AND LOCAL CODES, NEW YORK CITY BUILDING CODE.

NOTIFICATION - THE CONTRACTOR SHALL GIVE A MINIMUM OF TWO (2) DAYS NOTICE TO THE AUTHORITY'S REPRESENTATIVE PRIOR TO COMMENCING ANY WORK AND SHALL NOTIFY OF ANY CHANGE IN THE WORK SCHEDULE.

REMOVE FROM THE SITE AND LEGALLY DISPOSE OF ALL REMOVED MATERIALS AND DEBRIS.

DEFECTIVE WORK

24.01 THE CONTRACTOR SHALL MAKE PERMANENT CORRECTIVE REPAIRS, AS RECOMMENDED BY THE AUTHORITY'S REPRESENTATIVE AND MANUFACTURER, WITHIN 48 HOURS OF NOTIFICATION. IF INCLEMENT WEATHER DOES NOT PERMIT PERMANENT CORRECTIVE REPAIRS, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS, AS APPROVED, WITHIN THE AFOREMENTIONED TIME FRAME.

24.02 PROTECTION AND CLEANING.

24.03 PROTECT ALL EXISTING CONSTRUCTION AGAINST DAMAGE AND STAINING.

24.04 ALL PROPERTY OF THE AUTHORITY AND/OR TENANTS DAMAGED BECAUSE OF THE WORK OF THIS CONTRACT SHALL BE RESTORED OR REPAIRED BY THE CONTRACTOR AT NO COST TO THE AUTHORITY.

24.05 PROVIDE DUMPSTER FOR DISPOSAL OF DAILY DEBRIS AND CART AWAY THE DUMPSTER FROM THE PROJECT REGULARLY TO DISPOSE OF THE COLLECTED DEBRIS. AT THE END OF EACH DAY'S WORK, REMOVE ALL DEBRIS AND ALL MATERIALS NOT USED DURING THE DAY FROM ALL PUBLIC AREAS TO A DESIGNATED STORAGE AREA. DO NOT LEAVE USED OR UNUSED MATERIALS OR EQUIPMENT IN THE PUBLIC AREAS AFTER THE WORKERS LEAVE.

24.06 REMOVE ALL STAINS AND SPOTS CAUSED BY THE WORK OF THIS CONTRACT.

24.07 BROOM CLEAN ALL WORK AREAS AT THE END OF EACH WORKING DAY.

24.08 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, SALVAGE, AND REINSTALLATION OF ANY STRUCTURE AND/OR FIXTURES ON THE EXTERIOR BRICKWORK, INCLUDING AIR CONDITIONING GATES AT NO COST TO THE AUTHORITY.

PART 2 PRODUCTS

25.01 GENERAL

25.02 WHERE MATERIALS OF THIS SECTION ARE USED FOR THE INSTALLATION OF OR COME IN CONTACT WITH OTHER COMPONENTS OR SYSTEMS; THEN THE MATERIALS OF THIS SECTION AND THEIR INSTALLATION MUST CONFORM AND NOT VOID THE MANUFACTURER'S GUARANTEES FOR THE OTHER MATERIALS OR SYSTEMS.

25.03 ALL MATERIALS SHALL BE ASBESTOS FREE.

25.04 ALL MATERIALS, COMPONENTS AND THEIR INSTALLATION SHALL CONFORM TO THE NEW YORK CITY BUILDING CODES.

25.05 SEALANTS

25.06 SEALANTS

25.07 GENERAL

25.08 IN USING SPECIFIED SEALANTS, STRICTLY OBSERVE THE PRINTED INSTRUCTIONS OF SEALANT MANUFACTURER REGARDING JOINT SIZE, LIMITATIONS, BACKER ROD, MIXING, CLEANING, SURFACE PREPARATION, PRIMING AND APPLICATION. A PRIMER SHALL BE USED, UNLESS PRINTED INSTRUCTIONS ADVISE TO THE CONTRARY, AND SEALANT MANUFACTURER CERTIFIES THAT THE USE THEREOF WILL REDUCE ITS PERFORMANCE. SEALANT SHALL NOT BE APPLIED WHEN SUBSTRATES ARE WET OR WHEN THE TEMPERATURE IS BELOW 40 DEG. F.

25.09 CARE SHALL BE EXERCISED TO INSURE AGAINST "THREE SURFACE ADHESION". BOND BREAKERS SHALL BE PROVIDED WHERE NECESSARY.

25.10 CONTRACTOR SHALL PROVIDE CERTIFICATION FROM SEALANT MANUFACTURER THAT THE SEALANT MANUFACTURER HAS REVIEWED ALL SEALANT DETAILS AND FINDS SAME SUITABLE FOR THE PURPOSE INTENDED, COMPATIBLE WITH AND WILL NOT STAIN THE SURFACES WITH WHICH THEY ARE IN CONTACT. STATEMENT AS TO COMPATIBILITY, ADHESION SUFFICIENCY AND NON-STAINING SHALL BE ACCOMPANIED BY ACTUAL TEST RESULTS ON PRODUCTION SUBSTRATES PERFORMED IN ACCORDANCE WITH APPLICABLE ASTM PROCEDURES.

A. Sealants (non-structural)

1. Sealant shall be one-component polyurethane sealant and shall meet all the requirements of Federal Specification No. TT-S-00230C, Type II, Class A. It shall be one of the following or an equal. Color shall match the adjoining elements:
 - a. Dymonic Tremco 3735 Green Road, Beachwood, Ohio 44122
 - b. Sonolastic NP-1 BASF Corporation Building Systems, 889 Valley Park Drive, Shakopee, Minnesota 55379
 - c. Sikaflex No. 1-A Sika Chemical Corp., P O Box 297, Lyndhurst, New Jersey 07071

- B. Backer rod shall be closed cell polyethylene form such as Sonolastic closed-cell Backer rod by BASF or equal. Diameter of backer rod before compression shall be 1 ½ times the width of the joint at the time of installation.

- C. Pre-formed Sealant: Bitumen impregnated flexible polyurethane foam pre-compressed to 20% of its uncompressed length such as Progress Unlimited's Compriband.
- D. The joint sealant for the expansion joint in the concrete roof curb shall be pre-compressed sealant "COMPRIBAND" as manufactured by Progress Unlimited, Inc., 381 Sunrise Hwy., Lynbrook, NY 11563, 1-800-777-7664/1-516-593-4142, or equal.

PART 3 EXECUTION

26.01 GENERAL

EXAMINATION: VERIFY SUBSTRATE CONDITIONS ARE ACCEPTABLE FOR INSTALLATION IN ACCORDANCE WITH THIS SPECIFICATION, MANUFACTURER'S INSTRUCTIONS.

SEALANT INSTALLATION

PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealers to comply with recommendations of joint sealer manufacturers and the following requirements:
 - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealer.
 - 2. Clean porous joint substrate surfaces to produce a clean, sound substrate. Remove loose particles remaining from cleaning.
 - 3. Remove laitance and form release agents from concrete.
 - 4. Clean non-porous surfaces with cleaners that are not harmful to substrates or leave residues that may affect joint sealers.
- B. Joint Priming: Prime joint substrates to comply with joint sealer manufacturer's recommendations. Confine primers to areas of joint sealer bond; not on adjoining surfaces.
- C. Masking Tape: Mask adjoining surfaces which might be permanently stained or damaged by sealant or by cleaning required to remove sealant. Remove tape immediately after tooling, without disturbing joint.
 - 1. **INSTALLATION**
 - a. General: Comply with joint sealer manufacturers' printed installation instructions, except where more stringent requirements apply.
 - b. Provide a continuous bead of sealant where indicated on Drawings, including double-layer installations. Comply with ASTM C919 and all manufacturers' recommendations for location of beads.
 - c. Elastomeric Sealant Installation Standard: Comply with ASTM C 962 for use of joint sealant, as applicable to conditions indicated.
 - 1) Installation of Sealant Backings: Install sealant backings to produce the shapes and depths of sealant for optimum performance.
 - 2) Do not leave gaps between ends of joint fillers.
 - 3) Do not stretch, twist, puncture, or tear joint-fillers.
 - 4) Do not use absorbent joint-fillers that are wet.
 - 5) Install bond breaker tape, where required, to prevent third-side adhesion of sealant to back of joint.
 - d. Install compressible seals serving as sealant backings to comply with requirements indicated above for joint fillers.
 - e. Installation of Sealant: Install sealant by proven techniques that result in sealant directly contacting joint substrates, completely filling joints, and providing uniform, cross-sectional shapes and depths for optimum sealant movement. Mask adjacent surfaces, if necessary.
 - f. Tool sealant to form smooth, uniform beads to eliminate air pockets and ensure adhesion of sealant with sides of joint. Remove excess sealant from adjacent surfaces. Provide concave joint configuration per Figure 6A in ASTM C 962.
 - 1) **CLEANING**

- (a) Clean off excess sealant or sealant smears as work progresses by methods and materials approved by manufacturer. Remove masking tape when no longer required.
- 2) PROTECTION
- 3) Protect joint sealers from contamination or damage, so that they are without deterioration or damage at time of Substantial Completion.
- 4) Remove damaged or defective joint sealers and reseal joints to match original work.

END OF SECTION 07 90 00