SPECIFICATION

Sections 07 90 00 / 07 95 00

Willseal 600 by Willseal

SECTION 07930

PREFORMED JOINT SEALANTS

PART 1 – GENERAL

SUMMARY

Section Includes

A preformed, pre-compressed polyurethane foam system impregnated with an acrylic based, flame-resistant, and weatherproofing sealant. The product is non-drying, non-shrinking, and self-expanding.

The sealant material is supplied in stick or roll form. Provide where indicated on drawings and as

specified in this section.

Related Sections and work specified elsewhere

1. Section 03300--- Cast in Place Concrete

2. Section 03400--- Pre-cast Concrete

3. Section 03470--- Tilt up Pre-cast Concrete

4. Section 04200--- Masonry Units

5. Section 04220--- Clay Masonry Units

6. Section 04220--- Concrete Masonry Units

7. Section 07240--- Exterior Insulation and Finishing System (EIFS)

8. Section 07415--- Metal Wall Panels

9. Section 08560--- Plastic Windows

10. Section 08550--- Wood Windows

PERFORMANCE REQUIREMENTS

|  |  |  |
| --- | --- | --- |
| Property | Test Method | Value |
| Standard for Pre-compressed  Tapes | DIN 18542  Classification | Passes all testing  BG1 and BG2 |
| Density | ASTM D-3574 | 5.5 - 6.5 lb/ft 3 (90-110kg/m3) |
| Thermal Resistance | ASTM C-518 | 2.93hr-°F-ft2/Btu |
| Ideal Storage Temperature |  | 70°F |
| Tensile Strength | ASTM D-3574 | 21 psi min. |
| Elongation | ASTM D-3574 | 120% +/- 20% |
| Compression Set | ASTM D-3574 | 4.2% max |
| Staining | DIN 18542 | None |
| Bleeding | DIN 18542 | None |
| Shelf Life |  | 2 Years\*\* |

\*Must submit independent lab tests to certify passage of all ASTM requirements in addition to the 12psf

rating.

\*\* When properly stored and in the original packaging.

SUBMITTALS

General – Submit the following according to Division 1 Specification Section.

Standard Submittal Package – Submit typical expansion joint drawing(s) indicating pertinent dimensions, general construction, expansion joint opening dimensions and product information.

Sample of material is required at time of submittal.

Quality control, manufacturer shall be ISO-9001, certified and shall provide written confirmation that a formal Quality Management System and Quality Processes have been adopted in the areas of, (but not limited to) Manufacturing, Quality Control and Customer Service for all processes, products and their components. Alternate manufacturers will be considered provided they submit written proof that they are ISO 9001, certified prior to the project bid date.

QUALITY ASSURANCE

Manufacturer’s Qualifications: Firm with not less than 3 years’ experience in manufacturing of products

similar in quality to those required for this project.

Installer’s Qualifications: Firm with not less than 3 years’ experience in the installation of products.

Similar in complexity to those required for this project.

DELIVERY, STORAGE, HANDLING

Deliver joint sealant to the jobsite in manufacturer’s original unopened boxes. Handle with care as

necessary to prevent damage or deterioration during shipment, handling and storage.

B) Store materials in dry, enclosed area protected from the elements (wind, water, snow, and extreme

temperatures).

C) Store materials at 70º F (21º C)

D) Comply with Section 01600.

PROJECT CONDITIONS

Substrate Conditions: Proceed with work only when substrate construction and preparation work is

complete and in condition to receive contact from product from manufacturer.

Weather Conditions: Do not proceed with installation of foam joint sealant under the following conditions: When ambient substrate temperature conditions are outside the limits permitted by the joint sealant manufacturer.

WARRANTY

Provide manufacturer’s 5-year warranty on performance of physical properties mentioned in product

data sheet. For a valid warranty, proper sizing must be followed per the manufacturer’s

recommendations. Contact Willseal to obtain a copy of terms and conditions. Warranty information is

subject to review on a case-by-case basis pertaining to special applications. Warranty is applied to

material not applications. Special applications shall be reviewed with Willseal engineering and/or a

registered design professional or architect/engineer prior to the project construction sequence begins as

precautionary measures to ensure best practice. Contact Willseal customer service for specific warranty

details at 1-800-274-2813.

2.1 MANUFACTURERS

Willseal, 34 Executive Drive, Hudson, NH 03051

Telephone 1-800-274-2813, Website [www.willseal.com](http://www.willseal.com)

B. Substitutions: Will be considered in accordance with provisions in of Section 01600.

2.2 MATERIALS

Willseal® 600 can be used in primary seal and secondary seal applications. Examples of these

applications include: vertical-plane façade (above grade) applications in window perimeters, other façade penetrations such as doors, store fronts, vents, curtain walls, metal panel joints, log homes, tilt up panels, masonry and brick and pre-cast applications, control joints and expansion joints.

Material to be supplied in roll format. Rolls shall be used when joint designs are up to 1-1/2” in width

(from substrate to substrate). Stick form material shall be used when joint design exceeds 1-3/4”. Both

material designs have a pressure sensitive adhesive on one flank of the joint filling material.

NOTE\*\* SPECIFIER: Choose one of the following configurations to suit your preference or allow the use

of either.

A. Material to be installed recessed from the substrate faces to act as the secondary seal behind

the installation of an exterior sealant bead of not more than 1/2” thick using appropriate

backing material for support.

B. Material to be installed at a depth sufficient to allow proper installation of the primary sealant in accordance with the manufacturer’s recommendations using a backer rod between the Willseal and the primary sealant.

Pre-compressed Joint Sealant Performance Requirements:

Water resistant (driving rain) per DIN 18542: no penetration of water when compression is less than 35% of original foam thickness (Consult manufacturer for various joint sizes and recommended compression ratios. The maximum compression ratio of Willseal® 600 is not more than 18% of the original foam thickness. The movement capability of the tape is 90%, (consult manufacturer for your application and joint size) based upon the manufacturer’s data and expected width of actual joints under most extreme conditions.

Ultraviolet light resistant DIN 74069 (3 months lab exposure time). Flammability ASTM E-84 (Smoke

Development and Flame Spread Characteristics (Consult Willseal for details). Compatibility with

conventional construction materials DIN 52423 (No sign of corrosion were observed when Willseal® 600

is in contact with zinc, steel, galvanized steel, aluminum and copper; no adverse effects with concrete,

aerated concrete, brick, some natural stone, PVC, Plexiglas and wood; for others consult Willseal

technical support.

Manufacturer to provide a Certificate of Compliance with the independent testing requirements for this

specification section.

ACCESSORIES

Cleaners or primers for substrates shall be approved by joint sealant manufacturer and substrate

manufacturer.

PART 3- EXECUTION

EXAMINATION

Verification of Conditions: Examine areas and conditions under which work is to be performed and

identify conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory

conditions have been corrected. Refer to manufacturer’s installation guide or contact manufacturer for

more information.

PREPARATION

Verify that: Joints are clean, dry, smooth, straight and parallel, and otherwise ready to receive the joint

sealant. Joints are clean and free of dust, dirt, and other residues that would inhibit a proper bond. Joint

seals are of the correct width to provide the specified compression. Joint configurations and joint surfaces shall be as detailed in the drawings in accordance with the contract specifications and in compliance with requirements in the current technical data available from the manufacturer. Joint sealant size shall be selected based on the mean joint size of the intended opening. All known detrimental conditions shall be reported immediately in writing. Field measurements of the depth and width of the joint shall be supplied to the manufacturer before the material is ordered.

INSTALLATION

Install joint seals in accordance with the manufacturer’s instructions. If manufacturer’s instructions do not apply to specific application, consult a registered architect or a certified design professional.

Consideration of surrounding materials shall be taken into consideration in joint design as well as

compatibility and system design. These details remain the responsibility of the building owner/architect,

design professional. Do not proceed with the installation of material if the joint is other than designed,

until written notification of these conditions is submitted to the manufacturer and design professional for the project. A written acknowledgement with an order to proceed shall be provided from the manufacturer or design professional. Design considerations on criteria such as joint movement shall be disclosed to manufacturer in order to select a proper size of material. Material shall be installed in strict accordance with the manufacturer’s instructions and advice of their official representative. Only use material in full pieces freshly unwound off the roll or in stick form. Use immediately after un-packaging. Press adhesive side firmly against one side of full length of the joint. Joint sealant will expand to fill joint. Rate of expansion will depend on temperature.

CLEANING

Clean adjacent surfaces and remove unused product and debris from the project site. Remove all waste

materials from the site. Leave work condition satisfactory to the architect/engineer.

PROTECTION

Protect sealant system during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes so that the joint sealant is without

deterioration or damage at time of Substantial Completion. If despite such protection, damage and

deterioration occurs, at no additional cost to the Owner, cut out and remove damaged and deteriorated

sealant system immediately and replace with new system materials so that installations with repaired

areas are indistinguishable from the original work.

END OF SECTION