

SPECIFICATION
Sections 07 90 00 / 07 95 00

Willseal 150 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/m ³)
Thermal Conductivity	ASTM C-518	0.28 - 0.30 Btu-in/hr-°F-ft ²
Thermal Resistance	ASTM C-518	3.3 - 3.6 hr-°F-ft ² /Btu
Ideal Storage Temperature		70°F
Tensile Strength	ASTM D-3574	21 psi min.
Water Resistance	ASTM E-283/330/331/547*	12 psf
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.

SUBMITTALS

Product data in the form of manufacturer's product specifications, installation instructions, and general recommendations for each type of expansion joint sealant system indicated. Submit under provisions in section 01300

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 70° F (21° C)

D) Comply with Section 01150.

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 10 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.

PART 2- PRODUCTS

2.1 MANUFACTURERS

Willseal, 34 Executive Drive, Hudson, NH 03051
Telephone 1-800-274-2813, Website www.willseal.com

B. Substitutions: Will be considered in accordance with provisions in of Section 01150.

2.2 MATERIALS

Willseal® 150 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 1-1/2". 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® 150 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® 150 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