1. PRODUCT NAME: Titebond® WeatherMaster™ Sealant

2. MANUFACTURER: Franklin International, 2020 Bruck Street Columbus, Ohio 43207
Customer Service: 1-800-669-4583
Technical Service: 1-800-347-4583
Website: www.titebond.com

3. DESCRIPTION:

Titebond WeatherMaster Sealant is a one-component, moisture cure, non-priming, premium grade, advanced MS polymer elastomeric sealant. (Note: Titebond WeatherMaster Translucent #44011 is an advanced neutral cure silicone.) It offers excellent adhesion to wood, masonry, PVC, fiber cement, concrete and most common building materials. This formulation contains no solvents or isocyanates and its very low VOC content meets the most stringent state and federal VOC regulatory requirements.

Color:

It is available in over 175 colors including crystal clear and translucent. For a complete listing of colors (with matches to all major siding and window manufacturers) please visit www.titebond.com/color_matcher.aspx.

Coverage:

10.1 fl. Oz. (300ml) yields approximately 31 linear ft. (9.45 meters) of ¼" (6 mm) round bead

Features and Benefits

Features	Benefits
Joint movement capability +/- 25%	Withstands substrate movement in properly designed joints
Ultra low VOC	VOC compliant in all 50 states; complies with LEED, NAHB, CARB and Green Globes standards.
175 + colors	Matches most common substrates
Weather and aging resistant	Maintains durable weather tight seals over long time frames
Extrudes and cures down to 0°F (-18°C)	Can be applied in frigid cold winter conditions (remove ice and frost before application)
UV-resistant	Will not crack
Excellent adhesion to many common materials	Seals between windows, doors, siding, gutters and vents made from an array of common construction materials
Paintable* surface skins quickly	Paintable* after 1 hour (exterior water based latex paint recommended)
Fills gaps up to 1" (25 mm)	Can seal joints with +/- 1/4" (+/- 6 mm) movement
98% + solids	Low shrinkage from cure process
Primer not needed for most construction materials (Primer is required for mortar.)	Reduces installation costs
USDA approved	Approved for use in meat and poultry areas

(*Titebond WeatherMaster Translucent #44011 is not paintable.)

Where to Use

Applications	Locations	Substrates		
Windows	Exterior	Aluminum	Fiber board (MDF,HDF)	Ceramics
Siding/trim	Above grade	Vinyl	Masonry	Acrylic & other plastics
Doors		Glass	Concrete	
Gutters		PVC	FRP	
Vents		Wood	EPS foam	
Roofs		Fiber cement siding	Stone and granite	

Limitations

- Upon application, air, sealant and surface temperature should be at or above 0°F (-18°C) and the substrate free of frost and ice.
- WeatherMaster is intended for exterior use and if used indoors must be painted*.
- May be painted* with an exterior water based latex paint approximately one hour after application. For other types of paint, a compatibility test is required.
- Rigid paint coatings are not recommended as their films can crack or lose adhesion due to movement of an elastomeric sealant in a dynamic joint.
- Always apply sealant in bead form. Do not smear, feather or wipe sealant to a thin consistency or film outside of joint area unless 1) sealant will be painted* or 2) the area has been masked with tape. Once sealant is dry to touch and does not transfer, remove masking tape.
- Do not use sealant to fill nail or screw holes.
- Sealant is not designed for continuous submersion or use below the waterline.
- This is a moisture cure sealant and if used in lower humidity and temperature conditions, full curing and skin formation times will be extended.

*Titebond WeatherMaster Translucent #44011 is not paintable.

4. TECHNICAL DATA AND PROPERTIES

Applicable Standards:

This chemically curing sealant meets or exceeds the requirements of:

- ASTM C920 Type S Grade NS Class 25 Use NT, M (when primed), G and A**
- Federal Specification TT-S-00230C Type II Class A **white, colors and crystal clear**
- CAN/CGSB-19. 13-M87 Classification MCG-2-25-A-N **white, colors and crystal clear**
- USDA approved for use in meat and poultry areas **white, colors and crystal clear**

**Titebond WeatherMaster Crystal Clear #43991 is class 50 Use T, NT, G and A

Typical Uncured (as supplied) Properties

Typical Uncured (as supplied) **Properties** (Material and curing conditions @75°F (24°C) and 50% R.H.)

Property	Method	Value
Type		Advanced MS Polymer Titebond WeatherMaster Translucent #44011 is an advanced netural cure silicone
Storage Life		18 months
Storage Conditions		Store original/unopened containers at or below 80°F (27°C) and 50% RH
Application Temperature Range		Above 0°F (-18°C) (remove ice and/or frost from substrate)
Full Cure		24 hours (1/4" or 6mm bead or less)
Freeze/thaw stability		Stable/Will not freeze
Flashpoint		Solvent free/Not applicable
Reactive VOC		9 g/L (<1.5% wt.) **white and colors** 11 g/L (<1.5% wt.) **crystal clear** 3 g/L (<0.3% wt.) **translucent**
Solids		98%
Viscosity		500,000 cps **white, colors & translucent;** 400,000 cps **clear**
Rheological Properties	ASTM C639	Non-sag
Extrusion Rate Pass > 10 ml/min	ASTM C1183	Pass – 185 mL/min; **white & colors** Pass – **crystal clear**; Pass – 455 mL/min **translucent**
Tack-Free Time	ASTM C679	Approximately 20 - 30 minutes skin time @ 75°F (24°C) and 50% RH **white, colors and crystal clear** Approximately 15 -20 minutes skin time @ 75°F (24°C) and 50% RH **translucent**

Typical Cured Properties		
Property	**Method**	**Value**
Joint Movement Capability	ASTM C719	+/- 25%
Tensile Strength	ASTM D412	225 psi **white, colors and crystal clear;** 420 psi **translucent**
Percent Elongation at Break	ASTM D412	400% **white and colors;** 250% – **crystal clear**; 350% **translucent**
Hardness – Shore A	ASTM C661	25 – 35 **white and colors;** 25 **crystal clear**; 30 **translucent**
Effect of Heat Aging	ASTM C1246	Pass/No cracking
Stain and Color Change	ASTM C510	Pass/No Stain
Adhesion-in-peel	ASTM C794	
Aluminum		Pass
Concrete		Pass **white, colors and crystal clear**
Glass		Pass
Effects of Accelerated Weathering	ASTM C793	Pass
Service Temperature Range		-75°F to 300°F (-59°C to 149°C) **white and colors** -75°F to 250°F (-59°C to 121°C) **crystal clear** (may discolor at higher temps) -40°F to 400°F (-40°C to 204°C) **translucent**

5. INSTALLATION:

JOINT DESIGN

Joint Width:

Joints must be designed to accommodate the +/- 25%* expansion/contraction capability of Titebond WeatherMaster sealant.

25% x JW (joint width) = 1/4"
JW = 1/4"/.25 = 1"

or

25% x JW(joint width) = 6 mm
JW = 6mm/.25 = 24mm

Recommended minimum joint width is ¼" (6mm) and recommended maximum joint width is 1" (25mm).

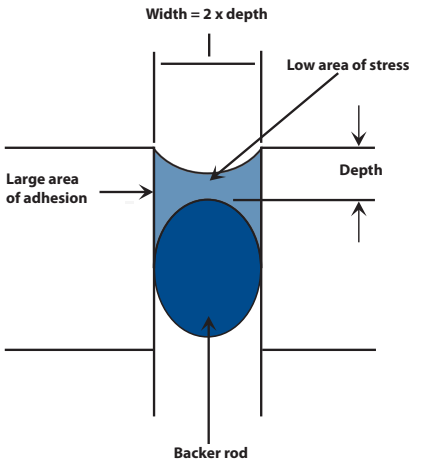
Note: For more detailed information on joint design, we recommend reviewing the most recent additions of 1) ASTM C1193 Standard Guide for Use of Joint Sealants and 2) ASTM C1472 Standard Guide for Calculating Movement and Other Effects When Establishing Sealant Joint Width

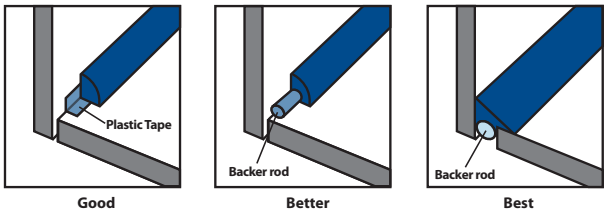
Joint Depth:

Joints should be designed with a depth to width ratio of 1:2 (joint depth = ½ width), but in no case should the joint depth be less than ¼" (or 6mm) or greater than ½" (or 12mm).

* Titebond WeatherMaster Crystal Clear #43991 is +/-50%

IDEAL SEALANT JOINTS





Backer Rod or Bond Breaker Tape:

The depth of the sealant must be controlled by using a suitable sealant backing material. The backing material must also function as a bond breaker to eliminate 3 sided adhesion and allow the sealant to expand and contract properly as designed.

Surface Preparation:

Surfaces must be cleaned down to the original substrate and free of any material or contaminant that may prevent or deter adhesion. Such contaminates include, but are not limited to: dirt, frost, loose particles, existing sealants, grease, oils, rust, etc.

Application:

Air, sealant and substrate surface temperatures must be at or above 0°F (-18°C) at the time of application. For best results, sealant should be applied when joint is at midpoint of its designed dynamic expansion and contraction. Always apply sealant in bead form. After joints have been completely filled, they should be neatly tooled to eliminate air pockets or voids, and to ensure good substrate wetting for optimum adhesion. Dry tooling is recommended and use of solvents or soapy water as tooling agents is discouraged. Do not smear, feather or wipe sealant to a thin consistency or film outside of joint area unless the area has been masked with tape or if it will be painted. Once sealant is dry to touch and does not transfer, remove masking tape. Do not use sealant to fill nail or screw holes.

Linear Feet of Sealant per Gallon*

Joint Size (rectangle) Width (inches) \ Depth (inches)	1/4″	3/8″	1/2″
1/4″	308.0		
3/8″	207.0		
1/2″	154.0		
5/8″	114.6		
3/4″		68.5	51.3
7/8″		58.7	44.1
1″		51.3	38.5

* 12 cartridges equal approximately 1 gallon

Linear Meters of Sealant per Liter*

Joint Size (rectangle) Width (mm) \ Depth (mm)	6	10	13
6	27.8		
10	16.7		
13	12.8		
16	10.4		
19		5.3	4.0
22		4.5	3.5
25		4.0	3.1

* 12 cartridges equal approximately 3.6 Liters

Cleanup:

Uncured sealant may be cleaned with isopropyl alcohol. *After curing, excess sealant must be cut or scraped away. Follow solvent vendor's precautions when using solvents.
* Titebond WeatherMaster Translucent #44011 can be cleaned with mineral spirits or similar solvent before cured.

Precautions:

CAUTION: EYE AND SKIN IRRITANT. Do not swallow. Do not allow eye contact or prolonged skin contact. **First Aid:** If swallowed, do not induce vomiting; contact physician. If eye contact occurs, flush with water for 15 minutes. Wash skin contact areas with soap and water. If irritation from eye or skin contact areas persists, contact physician. Product releases methanol** during cure. For additional information, refer to Material Safety Data Sheet. **KEEP OUT OF THE REACH OF CHILDREN.**
**Titebond WeatherMaster Translucent #44011 releases methyl ethyl ketoxime (MEKO) during cure.

6. AVAILABILITY AND COST

Titebond products are available from distributors and dealers serving North America and other continents across the globe. For dealer information contact our Customer Service department at 800-669-4583 or at concustserv@franklininternational.com .

7. WARRANTY

Limited Warranty: If not satisfied with product performance when used as directed, return container and proof of purchase to Franklin International, Inc. for replacement of product. Buyer's sole remedy shall be limited only to the replacement of product exclusive of cost of labor. No other warranties are expressed or implied.

8. MAINTENANCE

Inspect sealant joint area at a minimum of every five years. If the sealant or sealant bond is damaged, remove or cut out the sealant in the damaged area and reapply new sealant.

9. TECHNICAL SERVICES

The Titebond Technical Service team is ready to provide assistance in product selection, application methods or other product related questions you may have. They are available Monday thru Friday 8:00 AM to 6:00 PM EST at 800-347-4583 or can be reached at contechserv@franklininternational.com.

10. FILING SYSTEMS

• www.Arcat.com • General Building • 07 92 00 Joint Sealants