

AU-1 COMMERCIAL CONSTRUCTION SEALANT

Premium-Grade, High-Performance, High-Movement, Single-Component, Elastomeric, Acrylic Urethane Sealant

7 07 92 00
Joint Sealants

DESCRIPTION

AU-1 is a highly elastic and extremely durable high-performance construction sealant. It is an aqueous-based urethane acrylic polymer and one of the first high performance sealants of its' kind for the commercial building industry. The active ingredient in AU-1 is an Aqueous Polyurethane Dispersion. As internally plasticized resin it requires no mixing or priming to bond molecularly to most construction materials. AU-1 is paintable with no shine through or plasticizer bleed. It has very low VOC content meeting both CARB non-chemically curing sealant VOC (less exempt solvents): <1.5% and SCAQMD (less water and exempt compounds): <50 g/L requirements. AU-1 is extremely UV resistant and maintains high elasticity in all climates. It maintains its adhesive force even after years of exposure by bonding to surfaces through crosslinking on a molecular level. Once cured has exceptional mold and mildew resistance. AU-1 does not lose its elasticity under constant, greatly varying mechanical stress.

PRODUCT FEATURES

- + Ready to use, no mixing, reduces prep time
- + No primer required for most substrates reducing application time
- + Easy to gun and tool, for quicker application and neater joints
- + Seals joints up to 2" with proper joint design
- + Exceptional resistance to aging and weathering for long term durability
- + Available in sausages or pails for less jobsite waste and lower disposal costs
- + Can be painted
- + Superior adhesion to construction materials over long periods of time
- + Meets VOC requirements for all 50 states
- + Joint movement capacity $\pm 25\%$ with 800% elongation providing excellent flexibility for moving joints

APPLICATIONS

Interior and exterior
Vertical and horizontal joints
Expansion and control joints
Concrete panel joints
Tilt-wall joints
Exterior Insulation and Finish Systems (EIFS)
Siding— aluminum, wood and vinyl

Window frames—
aluminum, wood and
vinyl
Curtain wall joints
Mullion joints
Above grade
Stucco

STANDARDS

ASTM C-920, Type S,
Grade NS, Class 25,
Use NT, M, G, A & O

Exceeds TCBSAT-30*

PACKAGING

- 299ml (10.1 oz) cartridge,
12 cartridges per carton
- 600ml (20 oz) sausage
packs, 12 per carton
- 2 gallon pail
- 5 gallon pails

COLORS

White, Almond, Off White,
Stone, Limestone, Tan,
Aluminum Gray, Redwood,
Redwood Tan, Woodtone,
Clay, Black and Bronze

Custom colors available
Contact customer service

SHELF LIFE & STORAGE

24 months when properly
stored in original, unopened
containers away from heat
and direct sunshine

VOC CONTENT

<1.5% less exempt solvents

Fascia
Parapets

Flashing
Precast units

SUBSTRATES

- Concrete
- Masonry
- Aluminum
- Wood
- Cement Board
- Clay & concrete roof tiles
- Glass
- Natural stone
- Stucco
- Ceramic/Porcelain Tile
- Galvanized
- Vinyl Siding

Reference TCBSAT-30 for expanded detailed list of applicable AU-1 substrates*

PRIMING

AU-1 is generally considered a non-priming sealant. It is the user's responsibility to check the adhesion of the cured sealant on typical test joints at the project site before and during application consult Technical Services for additional information.

SUBSTRATE PREPARATION

Surfaces to be sealed must be dry and free of all dirt, dust, oil, mildew, loose paint, old caulk or other contaminants. Only apply when sealant, surface and air temperatures are above 40° F and rising. Do not apply on surfaces that exceed 140°F, or when rain is expected.

INSTALLATION

AU-1 comes ready to use. U-shaped joints should have the proper size backer rod or bond breaker tape installed to prevent 3-point adhesion. The sealant must reach deepest point of the joint. Remove excess with a clean rag and water. Tooling the joint flush with a putty knife is recommended. Tooling results in the correct bead shape, a neat joint, and maximum adhesion. 90° joints can be tooled smooth with a moistened rag to a minimum bead size of 3/8". AU-1 is not intended for use in below-grade joints or in areas that will be subject to frequent water ponding. For new construction, if the roof has not yet been installed, joints should be capped or protected at the top. The preferred method would include a water drainage system at the bottom of the joint. Note, clear will apply white and dry translucent.

CURE TIME @ 75° F (24° C) 50% relative humidity Joint Size 1/2" X 1/4"

Tooling Time: 15 Minutes. Tack Free Time: 60 Minutes. At standard conditions paint can be applied after 6-8 hours. Please note that the cure of AU-1 varies with temperature and humidity. Lower temperatures and/or higher humidity will extend curing times. In such cases painting should be delayed until the sealant has time to cure. Once cured, service temperature range: -40°F (-40°C) to 180°F (82°C).

CLEAN-UP/REMOVAL

Immediately after use, clean equipment with soap and water. Remove cured sealant by cutting with a sharp-edged tool. Remove thin films by abrading.

SHELF LIFE & STORAGE

Cartridges: 24 months when properly stored.

Storage: Store in original, unopened containers. Store away from heat and away from direct sunlight. Keep from freezing.

CERTIFICATION & TESTING

Property	AU-1
Type	Acrylic Urethane
Claims	Class 25
Tensile Properties	Cured Sample Value
Maximum Stress (psi)	152 ± 5
Elongation to Break	1000% ± 44
Elongation Max Stress	892% ± 10
Performance Test	Result
ASTM-C920 CLASS 25	Pass
TTS-00230	Pass

NOTES: Dry adhesion after fully curing sealant, as required by ASTM test protocol.

***TCBSAT-30 or Tower Common Building Substrate Adhesion Test**

Sealant is applied to 30 common building substrates and tested in accordance with a modified version of ASTM C-719. The minimum adhesion values used in TCBSAT-30 are significantly higher than those required by ASTM C-920.

For more information on TCBSAT-30 contact Tower Sealants at tech@towersealants.com

Property	AU-1
Dry Peel Adhesion	ASTM C-794 (pli)
Aluminum	32-42
Glass	39-45
Cement	32
Wet Peel Adhesion	ASTM C-794 (pli)
Aluminum	20-28
Glass	25-28
Cement	14-24
Channel Slump ASTM C-639	0 mm
Tack-Free Time ASTM C-679	60 mins
Shore A Hardness	15 ± 2
Formulation Characteristics	
Extrusion Rate	15 g/sec
pH	< 8.3
Flex (180° bend, 1/2" mandrel)	ASTM C-793
After 250 hours WOM - 15° F	Pass
± 25% Joint Movement	ASTM C-719
Aluminum	Pass
Glass	Pass
Cement	Pass
AAMA Testing	Result
AAMA 808.3	Pass



SAFETY

See Material Safety Data Sheet for safety information or product label.

To request a Material Safety Data Sheet, visit our web site at www.towersealants.com or contact Tower Sealants at 866-897-7568.

For medical emergencies only, call ChemTrec 1-800-424-9300.

Make certain the most current versions of Technical Product Data Sheet and SDS are being used.

Call Customer Service (1-866-897-7568) to verify the most current versions.

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: **LIMITED WARRANTY:** Tower Sealants warrants that this product, provided it is properly
: stored and applied, will never crack, peel, or separate. If a failure occurs, return proof of
: purchase for replacement. Manufacturer shall not be held liable for damages in excess of the
: purchase price. This is the sole and exclusive remedy and liability for defects or failure of this
: product. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL,
: STATUTORY, EXPRESSED OR IMPLIED; INCLUDING WITHOUT LIMITATION ANY
: IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS.
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Company Information

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