



TECHNICAL DATA SHEET (TDS)

Product: 201 Acrylic Sealant
Type: Water-Based Latex Caulk
Date: 2026.01.02

Product Name: Xproseal 201 Acrylic Sealant (Water-Based Latex Caulk)

1. Product Description & Key Features

Xproseal™ 201Acrylic Sealant is a premium-grade, one-component, water-based acrylic emulsion caulk formulated for interior and exterior gap filling, trim perimeter sealing, and light construction joints. It cures by water evaporation to form a durable, permanently flexible, and fully paintable seal. Designed with an ultra-low VOC, eco-friendly waterborne formulation safe for indoor living spaces.

- Eco-Friendly & Ultra-Low VOC:** Water-based formula, non-toxic, low odor, ultra-low VOC (< 15 g/L), safe for indoor living environments and LEED-compliant projects.
- Superior Adhesion:** Excellent primerless adhesion to drywall, wood, masonry, concrete, brick, aluminum, iron, and stainless steel.
Easy Tooling & Water Clean-Up: Smooth gunning and easy tooling; cleans up quickly with warm water and soap before curing.
Flexible Joint Movement: Accommodates dynamic joint movement (±12.5% to ±20%) without cracking, shrinking excessively, or debonding.
Excellent Paintability: Fully paintable with water-based (latex) and oil-based architectural paints after initial cure.

2. Technical Data & Physical Properties (Typical Values)

Property / Parameter	Test Standard / Method	Typical Value / Specification
Chemical Base / Raw Material	Manufacturer Standard	Water-borne Acrylic Polymer Emulsion
Appearance & Consistency	Visual / Internal	Smooth, Stable Thixotropic Paste (Non-sag)
pH Value	pH Meter	7.5 ~ 9.0 (Mildly Alkaline)
Skin-Formation / Tack-Free Time	20°C (68°F), 65% RH	Approx. 15 minutes
Curing Rate	20°C (68°F), 65% RH	Approx. 2.5 mm / 24 hours
Extrudability	200 kPa / 60s	200 g/min
Specific Gravity / Density	DIN 53479 / ASTM D1475	1.50 ± 0.05 g/cm³ (approx. 12.5 lbs/gal)
Hardness (Fully Cured)	DIN 53505 / ASTM D2240 ASTM	35 ± 5 Shore A
Tensile Strength	D412 / DIN 53504	0.8 ~ 1.0 MPa (116 ~ 145 psi)
Elongation at Break	DIN 53504 / ASTM D412	250% ~ 350%
Elastic Recovery Rate	ISO 7389	≥ 45%
Joint Movement Capability	Internal Standard / ISO 11600	± 12.5% to ± 20% (Working Joint ± 10%)
Service Temperature Resistance	Fully Cured	-20°C to +80°C (-4°F to +176°F)
Application Temperature	Ambient & Substrate	+5°C to +35°C (+41°F to +95°F)
VOC Content	EPA M24 / SCAQMD Rule 1168	< 15 g/L (Ultra-Low VOC / Eco-Friendly)

* Note: Technical data represent typical laboratory test results and may vary depending on ambient temperature, relative humidity, and substrate porosity.

3. Applications & Recommended Uses

- **Building & Construction:** Sealing and caulking around interior window/door frames, baseboards, crown molding, trims, drywall joints, and architectural trim finishing.
- **Interior Gap Filling:** Tile grout perimeter finishing, skirting board bonding, door-jamb edge sealing, and gap filling between walls and built-in fixtures.
- **Industrial & Transport:** Weld-sealing for shipping containers, vehicle carriages, bus/truck body underbody seams, and general sheet metal joint sealing.

4. Application Instructions

- **Surface Preparation:** Substrates must be clean, structurally sound, dry, and free from dust, dirt, grease, oil, wax, old sealant residues, and frost. Clean with alcohol or appropriate cleaner if necessary.
- **Application Conditions:** Apply at ambient and substrate temperatures between +5°C and +35°C (+41°F to +95°F) with relative humidity ≤ 60%. Do not apply during rain, snow, freezing conditions, or on wet surfaces.
- **Joint Design & Tooling:** For joints up to 10 mm wide, recommended bead width is approx. 1.5 times the joint depth. Cut nozzle tip at a 45° angle to desired bead size. Extrude with a manual or pneumatic caulking gun and tool immediately with a damp scraper or sponge.
- **Curing & Painting:** Cures by water evaporation. Tack-free in ~15 minutes; full cure is achieved in 7 to 15 days depending on joint depth and humidity. Water-based latex paint can be applied once surface skin forms (recommend waiting 24 hours); oil-based paints require full curing.
- **Clean-Up:** Clean tools and excess uncured sealant immediately with warm water and soap. Cured sealant can only be removed mechanically by scraping or trimming.

5. Packaging, Storage & Shelf Life

- **Packaging:** 300 ml (10.1 fl oz) standard plastic cartridges; 24 cartridges per master carton. Custom sausage packs or bulk pails available upon request.
- **Storage Conditions:** Store in tightly closed original containers in a cool, dry, well-ventilated area between +5°C and +35°C (+41°F to +95°F). PROTECT FROM FREEZING and direct sunlight.
- **Shelf Life:** Minimum 12 months from date of manufacture when stored in unopened original packaging under recommended conditions.
- **Transportation:** Classified as Non-Hazardous for ground, ocean, and air transport. Protect from freezing during winter transit (freezing may occur at ≤ 0°C).

6. Limitations & Restricted Uses (Do NOT Use / Not Recommended)

To ensure proper performance and safety, observe the following application limitations and precautions:

- **Continuous Water Immersion:** Not recommended for joints subject to continuous water submersion (e.g., aquariums, swimming pools, below-grade wet areas).
- **Wet Weather & Freezing Conditions:** Do NOT apply when rain, frost, or freezing temperatures are expected within 24 hours of application.
- **Structural & Load-Bearing Applications:** Not intended for structural glazing, load-bearing joints, or joints subject to heavy dynamic vehicle traffic abrasion.
- **Substrate Compatibility Test:** Due to the diversity of construction substrates and finishes, always perform a small-scale trial patch test prior to full application.
- **Health & Safety Precautions:** Avoid direct contact with skin and eyes. In case of eye contact, flush immediately with plenty of water and seek medical attention. Keep out of reach of children. Refer to SDS for comprehensive safety information.