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Technical Data Guide

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Joint
Sealants

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MasterSeal® TX 1

One-component, texturized, moisture-curing, gun-grade elastomeric polyurethane sealant

FORMERLY SONOLASTIC® TX 1

PACKAGING

300 ml cartridges, 30 per carton

COLORS

Standard colors: White, Stone, Limestone, Black, Special Bronze, Aluminum Gray, Buff, and Natural Stone. Refer to the Master Builders Solutions Color Portfolio.

YIELD

See page 3 for charts

STORAGE

Store in unopened containers in a cool, dry area. Storing at elevated temperatures will reduce the shelf life.

SHELF LIFE

1 year when properly stored

VOC CONTENT

33 g/L less water and exempt solvents

DESCRIPTION

MasterSeal TX 1 is a one-component, texturized, moisture-curing, gun-grade polyurethane sealant. It requires no mixing and typically requires no priming on common building materials. MasterSeal TX 1 has a textured appearance, which blends well with masonry substrates.

PRODUCT HIGHLIGHTS

- One-component formula requires no mixing, helping to reduce labor costs
- Gun grade
- Does not sag in vertical joints
- Weather resistant, producing long-lasting weathertight seals
- Textured appearance compliments rough surfaces like masonry and stucco
- Accepts joint movement of $\pm 25\%$, keeping moving joints tightly sealed
- High quality polyurethane polymer resists age hardening
- Easy to gun and tool, speeding up application and making neater joints
- Available in 10 standard colors to match common substrates
- Wide temperature application range makes MasterSeal TX 1 suitable for all climates
- No primer required for most construction materials, lowering installation costs
- Compatible with non-rigid coatings and can be painted
- Lower odor compared to other textured sealants

APPLICATIONS

- Horizontal and vertical joints
- Interior and exterior
- Expansion joints
- Panel walls
- Precast units
- Aluminum and wood window frames
- Vinyl siding
- Fascia
- Parapets
- Roofing

SUBSTRATES

- Concrete
- Masonry
- Aluminum
- Wood
- Stucco
- Brick
- Metal

A brand of
MECC GROUP

Technical Data**Composition**

MasterSeal TX 1 is a one-component moisture-curing polyurethane containing fibers for a textured appearance.

Compliances

- ASTM C 920, Type S, Grade NS, Class 25, Use NT, M, A, and O*
 - Federal Specification TT-S-00230C, Type II, Class A
 - USDA compliant for use in meat and poultry areas
- * Refer to substrates in Where to Use.

Typical Properties

PROPERTY	VALUE
Service temperature range, ° F (° C)	-40 to 180 (-40 to 82)

Test Data

PROPERTY	RESULTS	TEST METHOD
Movement capability, %	±25	ASTM C 719
Tensile strength, psi (MPa)	215 (1.48)	ASTM D 412
Tear strength, pit	50	ASTM D 1004
Ultimate elongation at break, %	735	ASTM D 412
Rheological, (sag in vertical displacement) inches, at 120° F (49° C)	1/16	ASTM C 639
Hardness, Shore A		ASTM C 661
At standard conditions	25 – 30	
After heat aging (max Shore A: 50)	30 – 35	
Weight loss, after heat aging, %	< 10	ASTM C 792
Cracking and chalking, after heat aging	None	ASTM C 792
Tack-free time, hrs (maximum 72 hours)	Passes	ASTM C 679
Stain and color change	No visible change	ASTM C 510
Adhesion in peel, pli, (min. 5 pli)*	22	ASTM C 794
Artificial weathering, Xenon arc, 3,000 hours	No elastomeric property change	Atlas 6500

*Primed for water immersion dictated by ASTM C 920.

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

TABLE 1

Joint Width and Sealant Depth

JOINT WIDTH, IN (MM)	SEALANT DEPTH AT MIDPOINT, IN (MM)
¼–½ (6–13)	¼ (6)
½–¾ (13–19)	¼–⅜ (6–10)
¾–1 (19–25)	⅜–½ (10–13)
1–1½ (25–38)	½ (13)

Yield

LINEAR FEET PER GALLON*

JOINT DEPTH, (INCHES)	JOINT WIDTH (INCHES)									
	¼	⅜	½	⅝	¾	⅞	1	1½	2	3
¼	308	205	154	122	–	–	–	–	–	–
⅜	–	–	–	82	68	58	51	–	–	–
½	–	–	–	–	51	44	38	26	19	12

METERS PER LITER

JOINT DEPTH, (MM)	JOINT WIDTH (MM)									
	6	10	13	16	19	22	25	38	50	75
6	24.8	16.5	12.4	9.8	–	–	–	–	–	–
10	–	–	–	6.6	5.5	4.7	4.1	–	–	–
13	–	–	–	–	4.1	3.5	3.0	2.2	1.5	0.7

HOW TO APPLY**JOINT PREPARATION**

- The product may be used in sealant joints designed in accordance with SWR Institute's Sealants - The Professional's Guide.
- In optimal conditions, the depth of the sealant should be ½ the width of the joint. The sealant joint depth (measured at the center) should always fall between the maximum depth of ½" and the minimum depth of ¼". Refer to Table 1.
- In deep joints, the sealant depth must be controlled by closed cell backer rod or soft backer rod. Where the joint depth does not permit the use of backer rod, a bond breaker (polyethylene strip) must be used to prevent three-point bonding.
- To maintain the recommended sealant depth, install backer rod by compressing and rolling it into the joint channel without stretching it lengthwise. Closed cell backer rod should be about ⅛" (3 mm) larger in diameter than the width of the joint to allow for compression. Soft backer rod should be approximately 25% larger in diameter than the joint width. The sealant does not adhere to it, and no separate bond breaker is required. Do not prime or puncture the backer rod.

SURFACE PREPARATION

Substrates must be structurally sound, fully cured, dry and clean. Substrates should always be free of the following: dirt, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing or curing and parting compounds, membrane materials and sealant residue.

CONCRETE, STONE, AND OTHER MASONRY

Clean by grinding, sandblasting, or wire brushing to expose a sound surface free of contamination and laitance.

WOOD

New and weathered wood must be clean, dry and sound. Scrape away loose paint to bare wood. Any coatings on wood must be tested to verify adhesion of sealant or to determine an appropriate primer.

METALS

Remove scale, rust and loose coatings from metal to expose a bright white surface. Any coatings on metal must be tested to verify adhesion of sealant or to determine an appropriate primer.

PRIMING

- MasterSeal TX 1 is considered a non-priming sealant, but special circumstances or substrates may require a primer. 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. Refer to product data sheet on MasterSeal P 173 or MasterSeal 176, and consult Technical Service for additional information.
- For immersion applications, MasterSeal P 173 must be used.
- Apply primer full strength with a brush or clean cloth. A light, uniform coating is sufficient for most surfaces. Porous surfaces require more primer; however, do not over-apply.
- Allow primer to dry before applying MasterSeal TX 1. Depending on temperature and humidity, primer will be tack-free in 15–120 minutes. Priming and sealing must be done on the same day.

APPLICATION

- MasterSeal TX 1 comes ready to use. Apply using professional grade caulking gun. Do not open cartridges until preparatory work has been completed.
- Fill joints from the deepest point to the surface by holding an appropriately sized nozzle against the back of the joint.

3. Dry tooling is recommended. Proper tooling results in the correct bead shape, neat joints, and optimal adhesion.
4. For roof tile applications, apply a bead of MasterSeal TX 1 sufficient in size to make a bond between two tiles on the upper surface of the down slope tile. Install the upslope tile and press into the sealant bead to ensure good contact between the sealant and both tiles.

CURING TIME

The cure of MasterSeal TX 1 varies with temperature and humidity. The following times assume 75° F (24° C), 50% relative humidity, and a joint 1/2" width by 1/4" depth (13 by 6 mm).

- Skins: overnight or within 24 hours
- Full cure: approximately 1 week
- Immersion service: 21 days

CLEANUP

1. Immediately after use, clean equipment with MasterSeal 990 or xylene. Use proper precautions when handling solvents.
2. Remove cured sealant by cutting with a sharp-edged tool.
3. Remove thin films by abrading.

FOR BEST PERFORMANCE

- Do not allow uncured MasterSeal TX 1 to come in contact with alcohol-based materials or solvents.
- Do not apply MasterSeal TX 1 in the vicinity of uncured silicone sealants or uncured MasterSeal NP 150 or NP 150 Tint Base.
- Fresh MasterSeal TX 1 should not come in contact with oil-based caulking, silicone sealants, polysulfides or fillers impregnated with oil, asphalt or tar.
- Protect unopened containers from heat and direct sunlight.
- In cool or cold weather, store container at room temperature for at least 24 hours before using.
- MasterSeal TX 1 should not be used for prolonged immersion in water. Call Master Builders Solutions Technical Service for recommendations.
- Do not apply over freshly treated wood; treated wood must have weathered for at least 6 months.

- Substrates such as copper, stainless and galvanized steel typically require the use of a primer; MasterSeal P 173 or MasterSeal P 176 is acceptable. For Kynar coatings, use only MasterSeal P 173. An adhesion test is recommended for any other questionable substrate.
- UV exposure may cause white MasterSeal TX 1 to discolor. This does not affect sealant performance; where maintaining a true white appearance is critical, use Ultra sealant
- MasterSeal TX 1 can be applied below freezing temperatures only if substrates are completely dry, free of moisture and clean.
- Lower temperatures will extend curing times.
- Pursuant to accepted industry standards and practices, using rigid paints and/or coatings over flexible sealants can result in a loss of adhesion of the applied paint and/or coating, due to the potential movement of the sealant. However, should painting and/or coating be desired, it is required that the applicator of the paint and/or coating conduct on-site testing to determine compatibility and adhesion.
- Proper application is the responsibility of the user. Field visits by Master Builders Solutions personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.
- Do not use in swimming pools or other submerged conditions where the sealant will be exposed to strong oxidizers. Avoid submerged conditions where water temperatures will exceed 120° F (50° C).

HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting www.master-builders-solutions.com/en-us, e-mailing your request to mbsbscst@mbcc-group.com or calling 1(800)433-9517. Use only as directed.

IN CASE OF EMERGENCY: Call CHEMTEL +1 (800) 255-3924 or if outside the US or Canada, +1 (813) 248-0585.

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