Blome Sealant 55MT

Flexible, Moisture-tolerant Epoxy Novolac Joint Sealant

PRODUCT DESCRIPTION

Blome Sealant 55MT is a two-component, moisture-tolerant, 100% solids epoxy novolac elastomer with excellent chemical resistance and physical properties. It is particularly resistant to strong alkalis, moderate-strong mineral acids, mild oxidizers and salts. It has excellent adhesion to a variety of substrates including concrete, tile, brick, and metal. It will also bond to epoxy, vinyl ester and polyurethane-based floor toppings and coatings. Its exceptionally high strength makes it an excellent choice for joints exposed to frequent vehicular traffic and heavy load traffic to minimize breakdown of the shoulders of the joint.

GENERAL USES

Blome Sealant 55MT is generally used as an expansion and control joint sealant where good chemical resistance is also required such as for acid brick flooring, secondary containment and monolithic floor toppings and for high traffic floor areas. It may also be used in conjunction with Viton-based coatings for very severe chemical exposures. Blome Sealant 55MT will adhere to damp substrates and is ideal for use in areas where typical expansion joint applications include:

Dairy and meat processing plant brick floors
Chemical processing floors
Food and Beverage plants
Warehouse floors
Assembly plant areas

Blome Sealant 55MT can be used outdoors and in a wide variety of chemical environments. Exposure to sunlight and certain chemicals may cause discoloration. Discoloration alone should not be regarded as a sign of joint deterioration unless it is accompanied by defects such as cracking, erosion or swelling.

HANDLING CHARACTERISTICS

Blome Sealant 55MT is available in a pour grade for relatively horizontal surfaces and a caulking consistency can be made by adding “Part C” thixotrope for vertical applications. It may be poured in place and pumped with a caulk gun suitable for two-component materials. Blome Sealant 55MT will cure at temperatures as low as 40 F (5 C), for installation at the lower operating temperatures of dairy and cold processing facilities. Blome Sealant 55MT tolerates damp surfaces and humid conditions.

TYPICAL PROPERTIES
WET

Solids by Volume (VOC):	100% (0 lbs/gal, 0 g/L)
Mixed Density:	12.5 lb/gal, 93.5 lb/cu ft (1.50 g/cm^3)
Work life @ 77 ˚F (25 ˚C):	40-45 minutes (1 gallon mix)
Initial set time @ 77 ˚F (25 ˚C):	4-6 hours
Final Cure @ 77 ˚F (25 ˚C):	2-3 days (depending on chemical conditions during use)
Minimum setting temperature (material temperature at time of mixing = 70 – 77 ˚F (21 – 25 ˚C)):	40 – 45 ˚F (5 – 7 ˚C)
Mix Ratio, Resin:Hardener by weight (by volume):	5.3:1 (3:1)
Viscosity (Pour Grade):	<10,000 cps

CURED

Color:	Gray, black (other colors on request)
Tensile Elongation (ASTM D-638) – 28 days @ 77 ˚F (25 ˚C):	235%
Recovery after Elongation:	95%
Hardness, @ 77 ˚F (25 ˚C), Shore A (ASTM D2240):	80 (pour grade) 80 (caulk grade)
Tensile Strength (ASTM C-307) – 28 days @ 77 ˚F (25 ˚C):	1900 psi (13.1 MPa)
Bond Strength (ASTM C-321) – 28 days @ 77 ˚F (25 ˚C):	Greater than strength of concrete
Water Absorption (ASTM C-413):	<0.25 %/wt
Temperature resistance - continuous (dependent on chemistry):	140 – 160 ˚F (60 – 70 ˚C)
- infrequent, occasional steam:	200 – 220 ˚F (93 – 104 ˚C)
Resistance to Mineral Acids:	Good - Excellent
Resistance to Alkalis:	Excellent
Resistance to Oxidizers:	Fair - Good
Resistance to Dilute Organic Acids:	Fair - Good
Resistance to Non-polar Solvents:	Good - Excellent
Resistance to Polar Solvents:	Fair

PACKAGING & STORAGE

Blome Sealant 55MT is supplied as a two-component material, packaged in pre-measured one (1) gallon units (a short-filled gallon when combined for easy mixing). Larger 3-gallon units are

available upon request. Store unopened components in a dry place, out of direct sunlight and protected from the elements. Storage temperature should be 50-95°F. Properly stored, Blome Sealant 55MT will have a minimum shelf life of 12 months. Refer to date of manufacture printed on the label.

SPECIFICATION GUIDE

Fill all expansion joints with a two-component flexible epoxy sealant meeting the generic formulation and performance characteristics of Blome Sealant 55MT as manufactured by Blome International, O'Fallon, MO (800) 886-3455. Utilize the correct version of Blome Sealant 55MT for the ambient temperatures and usage. Install in accordance with the latest Blome Sealant 55MT data sheet and good industry practice.

APPLICATION GUIDELINES

ENVIRONMENTAL CONDITIONS

Apply only when air and surface temperatures are between 40 and 95°F and surface is at least 5°F above dew point. Do not use Blome Sealant 55MT at temperatures below 40°F. Substrate may be damp but remove any standing or excess water from joints prior to installation. Ensure Blome Sealant 55MT components are at a minimum of 70°F prior to mixing and application.

JOBSITE STORAGE OF MATERIALS

Proper storage of Blome International products is important to a successful application. Follow these general storage procedures:

1. Store components (Part A and Part B) unopened, at 50-85°F, out of direct sunlight and protected from the elements.
2. Keep away from heat and flame. For the 24 to 48 hours just prior to use, adjust the storage temperature to 70-85°F to facilitate handling.

JOINT DESIGN

For maximum sealant performance, the following design principles should be followed. A closed cell backer rod should be inserted into the joint, after surface preparation, at a depth equal to ½ of the joint width. However, minimum joint width and depth of sealant should be no less than ¼".

SURFACE PREPARATION

All surfaces must be clean, and free of standing water, oil, grease, rust, dirt or other contaminants that may inhibit proper adhesion. For porous surfaces such as concrete, wire brushing is recommended and for non-porous surfaces such as steel, solvent wiping may be adequate. Damp surfaces are acceptable, as long as free-standing water is removed from joint before application. Vertical joints (those where caulking grade is used) should always be primed with Blome Primer 75 Moisture Tolerant Primer. Primer should be allowed to cure to at least a tacky state before application of caulking grade.

MASKING & PROTECTION

Since installation of Blome Sealant 55MT should follow completion of the floor surface, it is advisable to mask the surfaces adjacent to the joint to minimize cleanup of the finished floor surface. Avoid foot traffic at least overnight and vehicle traffic for 24 hours minimum. Depending on chemistry and environmental conditions during cure, may require up to one week of cure before being placed into service.

APPLICATION EQUIPMENT

Blome Sealant 55MT is normally installed with simple equipment. For best results, pour into joints using a pour-can with a spout that has been shaped to fit the joint. This fills the joint from the bottom up and produces a better joint with fewer air bubbles trapped within the sealant. It may also be pumped with equipment suitable for viscous, two-component materials.

MIXING TECHNIQUE

We recommend using Jiffy type mixers for all mixing and stirring. While operating the mixer, avoid plunging it up and down in the bucket. This can fold air into the resin, which may result in bubbles and voids in the cured sealant. Be especially careful not to allow water to enter the mix.

WORKING TIME

The working time for Blome Sealant 55MT is 40-45 minutes at 77°F. Ensure that the joints are ready for installation of the sealant before mixing. *We recommend mixing full kits.*

MIXING & APPLICATION

1. Pre-mix each component then mix together. Mix thoroughly for 2-3 minutes and uniform in color.
2. Pour or pump Blome Sealant 55MT into the joint taking care to fill the joint without trapping air or forming air pockets.
3. Blome Sealant 55MT pour grade is self-leveling and need not be tooled. However, Blome Sealant 55MT caulk grade should be tooled for best appearance and to ensure uniform bond to the edges of the joint.

TOUCH-UP & RECOATING

Short filled joint sealant or air pockets are best repaired by full removal of the sealant in the affected area and re-installation of the sealant.

CLEAN-UP

Hand tools and equipment may be cleaned with xylene or MEK after use. Cured material may be difficult to remove.

CAUTION

Blome Sealant 55MT may cause skin irritation with prolonged or repeated contact. Avoid skin contact and follow the material safety data sheet, which is available for each product.

ESTIMATING

ESTIMATED LINEAR FEET PER GALLON OF JOINT SEALANT							
DEPTH	**WIDTH**						
	½"	¾"	1"	1 ¼"	1 ½"	1 ¾"	2"
½"	77'	-	-	-	-	-	-
¾"	51.3'	34.2'	-	-	-	-	-
1"	38.5'	25.7'	19.3'	-	-	-	-
1 ¼"	30.8'	20.5'	15.4'	12.3'	-	-	-
1 ½"	25.7'	17.1'	12.8'	10.7'	8.6'	-	-
1 ¾"	22'	14.7'	11'	8.8'	7.3'	6.3'	-
2"	19.3'	12.8'	9.6'	7.7'	6.4'	5.5'	4.8'

WARRANTY

We warrant that our goods will conform to the description contained in the order and that we have good title to all goods sold. Our material data sheets and other literature are to be considered accurate and reliable, but are used as guides only. WE GIVE NO WARRANTY OR GUARANTEE, WHETHER OF MERCHANT ABILITY OR FITNESS OF PURPOSE OR OTHERWISE, AND WE ASSUME LIABILITY IN CONNECTION THEREWITH. We are happy to give suggestions for applications; however, the user assumes all risks and liabilities in connection therewith regardless of any suggestion, we may give. We assume no liability for consequential or incidental damages. Our liability, in law and equity, shall be expressly limited to the replacement of non-conforming goods at our factory, or at our sole option, to repayment of the purchase price of the non-conforming goods.

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Supersedes all previous literature