

MasterSeal[®] NP 520

Siliconized acrylic latex, acoustic/sound damping, fire-rated sealant

PACKAGING

MASTERSEAL[®] NP 520

- 5 gallon pail (18.9 L) pail
- 10.1 oz (300 ml) cartridges, 24 cartridges per carton (only available in white)

COLOR

White and Ash Brown

STORAGE

Store in original, unopened containers in a cool, dry area. Protect unopened containers from heat and direct sunshine. Storing at elevated temperatures will reduce shelf life.

SHELF LIFE

2 years under normal storage conditions between 40 °F (4 °C) and 80 °F (27 °C). Temperatures that are below 40 °F (4 °C) may result in freezing.

VOC

13 g/L or .10 lbs/gal

DESCRIPTION

MasterSeal[®] NP 520 is a single component, siliconized acrylic latex sealant formulated to provide easy gunnability, tooling and a fast setting seal with minimal shrinkage. It provides enhanced adhesion and weatherability, making it an ideal solution for many interior and exterior sealing applications.

Used as an acoustical sealant, MasterSeal NP 520 reduces sound transmission in partition systems to support high STC values by sealing spaces around cut-outs and at perimeters of partitions. The sealant cures to a tough rubber to form a long-lasting acoustical seal.

MasterSeal NP 520 also has been fire-rated and it meets Class A criteria set by NFPA 101 when tested according to ASTM E 84, "Standard Test Method for Surface Burning Characteristics of Building Materials."

PRODUCT HIGHLIGHTS

- Formulated to reduce shrinkage and cracking that commonly occurs in acrylic latex sealants
- Product can be painted after 2 hours
- Easy to gun and tool
- Non-flammable, suitable for use in interior applications
- Minimizes sound transfer and supports high STC ratings

SUBSTRATES

- Concrete
- Aluminum
- Masonry
- Wood
- Stone
- Metal
- Vinyl
- Fiber cement siding
- Plywood
- Gypsum wallboard
- Glass mat gypsum sheathing

APPLICATIONS

- Vertical or horizontal
- Interior or exterior
- Not for use in pedestrian and vehicular traffic applications
- For sealing a variety of low movement building joints against water and air intrusion
- Concrete joints
- Hollow core ceilings
- Floor planks
- Windows and door frames
- Vinyl, aluminum, steel and plywood siding
- Baseboards
- Bathrooms
- Kitchen fixtures
- Ceramic tile
- Repair mortar joints

Technical Data

Composition

MasterSeal NP 520 is a formulation based on siliconized acrylic latex technology.

Compliances

- Exceeds the standard specification for latex sealants ASTM C834, Type OP, Grade-18°C.
- STC (Sound Transmission Class)
- Meets Class A for smoke development and flammability test by ASTM 84 or UL 723

Test Data

PROPERTY	RESULTS	TEST METHOD
Adhesion Loss (%)	0.5	ASTM C736
Artificial Weathering		
1. Adhesion loss (%)	None	ASTM C 732
2. Cracking	None	ASTM C 732
3. Discoloration	None	ASTM C 732
4. Slump	None	ASTM C 732
5. Wash-out	None	ASTM C 732
Elongation At Break (%)	169	ASTM D 412
Extrusion Rate (g/sec)	9.8	ASTM C 731
100% Modulus (Psi/MPa)	199 (1.3)	ASTM D 412
Recovery (%)	91.3%	ASTM C 736
Slump (in)	0	ASTM D 2202
Stain Index	1.1	ASTM D 2203
Tack Free Time (Pass/Fail)	Pass	ASTM D 2377
Tensile Strength (Psi/MPa)	203 (1.4)	ASTM D 412
Volume Shrinkage (%)	25-28	ASTM C 7
Sound Transmission Class STC (dB)	58	ASTM E 90
Flame Spread Index	10	ASTM 84 or UL723
Smoke Development Index	5	ASTM 84 or UL723

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	¾
¼	308	205	154	122
⅜	–	–	–	82
½	–	–	–	51

* One gallon equals approximately 12 cartridges.

METERS PER LITER*

JOINT DEPTH (MM)	JOINT WIDTH (MM)			
	6	10	13	16
6	24.8	16.5	12.4	9.8
10	–	–	–	6.6
13	–	–	–	4.1

* One liter equals approximately 3.33 cartridges.

SURFACE PREPARATION

JOINT PREPARATION

1. Joints should not exceed 1 inch wide (25 mm) and 1/2 inch (13 mm) deep.
2. In deep joints, control sealant depth by installing closed-cell backer rod or soft backer rod. Where the joint depth does not permit the use of backer rod, use a bond breaker (polyethylene strip) to prevent three-sided adhesion.
3. To maintain the recommended sealant depth, install backer-rod by compressing and rolling it into joint channel without stretching it lengthwise. Closed cell backer rod should be about 1/8 inch larger in diameter than width of joint to allow for compression. Soft backer rod should be approximately 25% larger in diameter than the joint width.
4. Because the sealant does not adhere to backer rod, no separate bond break is required. Do not prime or puncture the backer rod.

SURFACE PREPARATION

Substrates must be structurally sound, fully cured, dry and clean. Substrates should be free of the following: dirt, moisture, loose particles, oil, grease, asphalt, tar, wax and rust.

CONCRETE, STONE AND OTHER MASONRY

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

METAL

1. Remove scale, rust and loose coatings from metal to expose a bright surface.
2. Test all coatings on metal that cannot be removed to verify adhesion of sealant.

WOOD

1. New and weathered wood must be clean, dry and sound.
2. Scrape away loose paint to bare wood.
3. Test all coatings on wood that cannot be removed to verify adhesion of sealant.
4. For freshly treated wood; allow six months for weathering.

PRIMING

MasterSeal NP 520 adheres to common construction substrates without primers, however, Master Builders Solutions always recommends that a mock-up or field adhesion test on actual materials be conducted to verify adhesion.

APPLICATION

1. MasterSeal NP 520 comes ready to use. Apply using a professional grade caulking gun. Do not open cartridges, sausages or pails until preparatory work has been completed.
2. Fill joints from 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. Best practices dictate that all caulking and sealing be done when temperature are above 40 °F (4 °C) to avoid application to moisture laden surfaces. Moisture on substrates will adversely affect adhesion. MasterSeal NP 520 is not recommend for application below 40 °F (4 °C).

CLEAN UP

1. Immediately after use, clean equipment with water.
2. Remove cured sealant by cutting with a sharpened tool or water.
3. Remove thin films by abrading.

CURE TIME

The cure of MasterSeal NP 520 varies with temperature and humidity as well as joint dimensions. The following times assume 75 °F (24 °C), 50% relative humidity and a joint 1 inch in width by 1/2 inch by depth.
Skins: within 45-75 minutes.
Full cure: approximately 1 week.

FOR BEST PERFORMANCE

- MasterSeal NP 520 should not be used in submerged applications.
- MasterSeal NP 520 is water resistant once the sealant is fully cured.
- Product should not be used when temperature is below 40 °F (4 °C)
- In cold weather, store container at room temperature for at least 24 hours before using
- 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, it is required that the applicator of the paint and/or coating conduct on-site testing to determine should painting and/or coating be desired 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.

Contact Master Builders Solutions Technical Services for applications requiring adhesion to plastic substrates. A mock up is recommended prior to installing MasterSeal NP 520 on low surface energy substrates.

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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