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Technical Data Guide

7 | 07 92 00 **Joint Sealants**

MasterSeal® NP 150

Low-modulus, non-sag, elastomeric, hybrid sealant

FORMERLY SONOLASTIC® 150 VLM

PACKAGING

– 300 ml (10.1 fl oz) cartridges, 30 cartridges per carton

– 20 oz (590 ml) ProPaks, 20 per carton

COLORS

White, Stone, Limestone, Black, Medium Bronze, Aluminum Gray, Tan, Off-White, Special Bronze, Precast White, Champagne

YIELD

See page 3 for charts

STORAGE

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

SHELF LIFE

15 months when properly stored

VOC CONTENT

13.6 g/L
less water and exempt solvents

DESCRIPTION

MasterSeal NP 150 is a high performance, very low-modulus, high-movement, non-sag, fast-curing, hybrid sealant.

PRODUCT HIGHLIGHTS

- Superior adhesion results in a long-lasting bond, helping to reduce call backs
- Low modulus to accommodate for joint movement (100% extension in EIFS joints with little stress on bond line)
- Can be painted with elastomeric coatings soon after installation
- Easy to gun and tool, speeding up application
- Wide temperature application range
- Weather resistant for long-lasting weathertight seals
- Fast curing helps to speed up jobsite production
- Non-staining formula for use on stone and other sensitive substrates
- Available in ProPaks to reduce jobsite waste and lower disposal costs
- Meets all state and federal VOC regulations

SUBSTRATES

- EIFS
- Stucco
- Aluminum
- Concrete
- Masonry
- Wood
- Stone
- Metal
- Vinyl
- Fiber cement siding

APPLICATIONS

- Vertical or horizontal
- Exterior or interior
- Above grade
- Joints with high movement
- In place of silicone sealants
- Store front systems
- Expansion joints
- Panel walls
- Precast units
- Aluminum, vinyl and wood window frames
- Fascia
- Parapets
- Sanitary applications

HOW TO APPLY

JOINT PREPARATION

1. The product may be used in sealant joints designed in accordance with SWR Institute's Sealants - The Professional's Guide.
2. 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.

Technical Data

Composition

MasterSeal NP 150 is a formulation based on hybrid polymer.

Compliances

- ASTM C 920, Type S, Grade NS, Class 50, Use NT, M, A, and O*
  -capable of +100/-50% movement under typical field conditions.
- ASTM C 1382 for use with EIFS wall systems at 100% Extension
- Federal Specification TT-S-001543A, Type II, Class A, Type Nonsag
- Federal Specification TT-S-00230C, Type II,Class A
- Corps of Engineers CRD-C-541, Type II, Class A
- CFI accepted
- USDA compliant for use in areas that handle meat and poultry

*Refer to substrates in Where to Use.

Typical Properties

PROPERTY	VALUE
Service temperature range, ° F (° C)	-40 to 180 (-40 to 82)
Shrinkage	None

TABLE 1

Joint Width and Sealant Depth

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

Test Data

PROPERTY	RESULTS	TEST METHOD
Movement capability, %	±50	ASTM C 719
Extention	100%	ASTM C 1382
100% modulus, psi (MPa)	35 (0.24)	ASTM C 412
Tensile strength, psi (MPa)	140–180	ASTM D 412
Tear strength, lb/in (kg/cm)	40 (7.1)	ASTM D 1004
Ultimate elongation at break, %	800–1,000	ASTM D 412
Rheological, (sag in vertical displacement), at 120° F (49° C)	No sag	ASTM C 639
Extrudability, sec	2 – 3	ASTM C 1183
Hardness, Shore A, at standard conditions	17	ASTM C 661
Weight loss, after heat aging, %	< 10	ASTM C 1246
Tack-free time, min (maximum 72 hours)	90	ASTM C 1246
Stain and color change	Passes (no visible stain)	ASTM C 510
Bond durability,* pli on aluminum and concrete, +/– 50% movement	Passes	ASTM C 719
Adhesion* in peel, pli (kg/cm), (minimum 5 pli [0.89 kg/cm])		ASTM C 794
Aluminum	35 (6.2)	
Concrete	36 (6.4)	
Artificial weathering, Xenon arc, 2,000 hrs	No Cracking	ASTM G 155

*Concrete primed with MasterSeal P 179 for water immersion as indicated in ASTM C 920.
Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Yield

LINEAR FEET PER GALLON*

JOINT DEPTH, (INCHES)	JOINT WIDTH (INCHES) ⅜	½	⅝
¼	205	154	122
⅜	–	–	82
½	–	–	–

3. 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.
4. 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 $\frac{1}{8}$" (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.

EIFS

1. MasterSeal NP 150 should be applied to the system base coat for best adhesion and to avoid delamination of EIFS finish applied in the joint.
2. Base coat must be sound, well bonded, properly cured and of sufficient depth to comply with manufacturer's specifications.
3. Certain EIFS systems require the use of a primer. Refer to the EIFS manufacturer for recommendations.

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.

METAL

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

1. MasterSeal NP 150 is generally a non-priming sealant, but special circumstances or substrates may require a primer.
   - Porous materials subject to intermittent water immersion require priming. Use MasterSeal P 179.
   - Certain architectural metal finishes may require priming with MasterSeal P 173.
   - 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 the technical data guides for MasterSeal P 179 and MasterSeal P 173.
2. Apply primer full strength with a brush or clean cloth. A light, uniform coating is sufficient for most surfaces. Very porous surfaces may require a second coat of MasterSeal P 179; however, do not over apply.
3. Allow primer to dry before applying MasterSeal NP 150. Depending on temperature and humidity, primer will be tack-free in 15–30 minutes. Priming and sealing must be done on the same day.

APPLICATION

1. MasterSeal NP 150 comes ready to use. Apply using professional grade caulking gun. Do not open cartridges, ProPaks or pails until preparatory work has been completed.
2. 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.

CLEAN UP

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

- In cold weather, store container at room temperature for at least 24 hours before using.
- Not for use in glazing applications. Do not apply on glass and plastic glazing panels.
- For proper sealing of joint edges, all window covers must be removed prior to application of sealant.
- Do not allow uncured MasterSeal NP 150 to come into contact with alcohol-based materials or solvents.
- MasterSeal NP 150 should not be applied adjacent to other uncured sealants and certain petroleum based products.
- MasterSeal NP 150 can adhere to other residual sealants in restoration applications. For best results, always clean the joint as advised in the Surface Preparation section of this data guide. A product field adhesion test for MasterSeal NP 150 within the specific application is always recommended to confirm adhesion and suitability of the application.
- MasterSeal NP 150 should not be used for continuous immersion in water. Contact Technical Service for recommendations.
- Do not apply over freshly treated wood. Allow six months for weathering.
- Do not use MasterSeal P 179 on nonporous surfaces such as aluminum, steel, vinyl or Kynar 500 based paints. Use MasterSeal P 173 on coated metals when testing dictates.
- Lower temperatures and humidity will extend curing times.
- MasterSeal NP 150 can be painted over after a thin film or skin forms on the surface.
- 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 BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

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.basf.us, e-mailing your request to basfbscst@basf.com or calling 1(800)433-9517. Use only as directed. **For medical emergencies only, call ChemTrec® 1(800) 424-9300.**

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