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Joint  
Sealants

# MasterSeal<sup>®</sup> 920 and 921

Joint filler and backing material for  
Master Builders Solution sealants

FORMERLY CLOSED-CELL BACKER-ROD AND SOFT BACKER-ROD

## PACKAGING

### MASTERSEAL 920

Sizes ¼–1¼" (6–32 mm) are wound on reels and packaged in cartons, weighing about 15 lbs (6.8 kg) per carton.

The 1½–4" (38–102 mm) sizes are packaged in 7 ft (2.1 m) lengths and packaged in cartons, weighing about 35 lbs (15.89 kg) per carton.

### MASTERSEAL 921

Sizes ⅜–1½" (10–29 mm) are wound on reels and packaged in cartons, weighing about 15 lbs (6.8 kg) per carton.

The 1½–4" (38–102 mm) sizes are packaged in 6 ft (1.8 m) lengths and packaged in cartons, weighing about 18 lbs (8.1 kg) per carton.

## COLOR

Gray

## YIELD

See page 2 for charts

## DESCRIPTION

MasterSeal 920 is a closed-cell, polyethylene foam joint-filler and backing for elastomeric sealants. Its resilience accommodates dynamic joints. MasterSeal 921 is a reticulated closed-cell polyethylene foam joint-filler and backing for sealants. It compresses easily to accommodate joints of varying widths.

## PRODUCT HIGHLIGHTS

### MASTERSEAL 920

- Closed-cell polyethylene foam for low moisture absorption
- Lightweight, installs easily and quickly
- Resilient—accepts joint movement
- Nonimpregnated, nonstaining, and nonbleeding, will not discolor sealants or substrates
- Inert for compatibility with cold-applied sealants
- Round to give proper shape to sealant for effective function
- Nonadhering to sealants, requiring no additional bondbreaker

### MASTERSEAL 921

- Nongassing when punctured to eliminate bubbling of sealant
- Reticulated closed-cell polyethylene foam for low moisture absorption
- Nonimpregnated, nonstaining, and nonbleeding, will not discolor sealants or substrates
- Highly resilient to conform to irregular joints; installs easily and quickly
- Nonadhering to sealants, requiring no additional bondbreaker

## APPLICATIONS

- Backing for sealants
- Precast panel joints
- Expansion joints
- Window-and door-frame perimeters
- Coping joints
- Glazing joints
- Isolation joints
- Control joints

**Technical Data**

**MASTERSEAL 920**

**Composition**

MasterSeal 920 is closed-cell polyethylene foam.

**Compliances**

- ASTM C 1330, Type C

**MASTERSEAL 921**

**Composition**

MasterSeal 921 is reticulated polyethylene foam with a continuous outer skin.

**Compliances**

- ASTM C 1330, Type B

**Test Data**

**MASTERSEAL 920**

PROPERTY	RESULTS	TEST METHOD
<b>Water absorption, oz/in<sup>3</sup> (g/cc)</b>	< 0.017 (< 0.03)	ASTM C 1016
<b>Density, lb/ft<sup>3</sup> (kg/m<sup>3</sup>)</b>	1.50–3.0 (24–48)	ASTM D 1622
<b>Compression recovery, %</b>	> 90	ASTM D 5249
<b>Compression deflection, psi (KPa)</b>	> 2.97 (>20.5)	ASTM D 5249
<b>Tensile strength, psi (KPa)</b>	> 29.0 (>200)	ASTM D 1623
<b>Service temperature, ° F (° C)</b>	-45 to 160 (-43 to 71)	

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

**MASTERSEAL 921**

PROPERTY	RESULTS	TEST METHOD
<b>Water absorption, oz/in<sup>3</sup> (g/cc)</b>	0.058 (0.10)	ASTM C 1016
<b>Density, lb/ft<sup>3</sup> (kg/m<sup>3</sup>)</b>	1.50–3.0 (24–48)	ASTM D 1622
<b>Compression recovery, %</b>	> 90	ASTM D 5249
<b>Compression deflection, psi (KPa)</b>	> 2.97 (> 20.5)	ASTM D 5249
<b>Tensile strength, psi (KPa)</b>	> 29.0 (>200)	ASTM D 1623
<b>Service temperature, ° F (° C)</b>	-45 to 160 (-43 to 71)	

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

**Yield**

**ESTIMATING MASTERSEAL 920 REQUIREMENTS**

ROD DIAMETER IN (MM)	LINEAR FT PER CARTON (METERS PER CARTON)
1/4 (6)	6,400 (1,951)*
3/8 (10)	3,600 (1,097)**
1/2 (13)	2,500 (762)
5/8 (16)	1,550 (472)
3/4 (19)	1,100 (335)
1 (25)	550 (168)
1-1/4 (32)	400 (122)
1-1/2 (38)	550 (168)***
2 (51)	360 (110)***
2-1/2 (64)	240 (73)***
3 (76)	144 (43.9)***
4 (102)	90 (27.4)***

\* Supplied as two 3,200 ft (975 m) reels

\*\* Supplied as two 1,800 ft (549 m) reels

\*\*\* Supplied as 7 ft (2.1 m) lengths

**ESTIMATING MASTERSEAL 921 REQUIREMENTS**

ROD DIAMETER IN (MM)	LINEAR FT PER CARTON (METERS PER CARTON)
3/8 (10)	3,600 (1097.3)*
5/8 (16)	1,550 (472)
7/8 (22)	850 (259.1)
1-1/8 (29)	500 (152.4)
1-1/2 (38)	550 (168.2)**
2 (51)	360 (109.7)**
2-1/2 (64)	240 (73.2)**
3 (76)	144 (43.9)**
4 (102)	90 (27.4)**

\* Supplied as two 1,800 ft (549 m) reels

\*\* Supplied as 6 ft (1.8 m) lengths

## HOW TO APPLY

### APPLICATION

1. Joint fillers have three major functions:
  - to control the depth of the sealant in proper relation to joint width
  - to provide a backing against which the sealant is applied, forcing the sealant to the sides of the joint
  - to prevent 3-sided bonding, ensuring proper functioning of the joint sealant
2. To install, compress backer-rod into the joint before sealants are applied.
3. Install backer-rod using a blunt probe or a plain-faced roller to force the rod to the desired depth.
4. A template or roller gauge may be used to control the depth at which the rod is placed.
5. DO NOT stretch backer-rod during installation but gently force into the joint so that the backer-rod fits tight against the sides of the joint.

### APPROPRIATE BACKER-ROD SIZE

#### SIZING MASTERSEAL 920

1. For joint widths up to ¾" (19 mm), the diameter of the rod should be ⅛" (3 mm) larger than the width of the joint.
2. For ¾" (19 mm) wide joints, use 1" (25 mm) diameter rod.

#### SIZING MASTERSEAL 921

Select a backer-rod diameter that is approximately 25% larger than the width of the joint.

See the yield table on the next page for both MasterSeal 920 and MasterSeal 921.

### JOINT SEALING

1. Follow suggestions for joint-sealant application as directed by sealant manufacturer.
2. Where priming of the joint is necessary, primer should be applied only to the joint surfaces and allowed to dry before backer rod is placed. DO NOT prime backer rod.

### FOR BEST PERFORMANCE

- Do not puncture, fold, stretch, or crease MasterSeal 920 / MasterSeal 921.
- Follow sealant manufacturer's suggestions for joint sealant width-to-depth ratio.
- Do not use with hot applied sealants.

- For joints subject to puncture by high heels or umbrella points, a stiffer or higher density backup material is required. Cork or non-impregnated cane-fiber joint fillers are suitable. Separate materials from the sealant by a nonadhering, bondbreaker (polyethylene tape).
- Make certain the most current versions of product data sheet and SDS are being used; visit [www.master-builders-solutions.com/en-us](http://www.master-builders-solutions.com/en-us) to verify the most current versions.
- 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.

### 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](http://www.master-builders-solutions.com/en-us), e-mailing your request to [mbsbscst@mbcc-group.com](mailto: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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