



MM[®] ColorJoint / ESS Series

Engineered Silicone Sealing System

SPECC DATA
 MM Systems Corp. • 50 MM Way, Pendergrass, GA 30567 • 866.506.6929 • www.mmsystems.com

DESCRIPTION

ColorJoint ESS is a high performance engineered silicone expansion joint sealing system that combines a factory cured silicone face seal made from Tremco Spectrem 3 Silicone fused to a cellular polyurethane-polyester binary backer block creating a monolithic seal. A field applied Spectrem 1 Silicone edge reveal bonds the seal to the structure.

BASIC USE

ColorJoint/ESS is designed for sealing vertical expansion joints that measure 1" or larger. The outstanding physical properties of the ESS System allows for a watertight seal in a wide variety of architectural applications – brick, block, concrete, window-walls, metal panels and the like.

FEATURES

- Conforms to irregular openings.
- 3-sided bonding on each side of seal with a primerless one-part silicone sealant.
- Extra thick (½" at bond line) factory engineered silicone seal nearly eliminates possibility of punctures.
- Watertight, dust-proof, airtight and soundproof.
- Resistant to UV, ozone, acid rain, wind driven rain and extreme temperatures.
- Easy to install, no fasteners or anchors.
- Non flammable.
- ± 50% movement capability.
- Near zero tensile stress at bond line.
- Available in a wide range of colors.

LIMITATIONS

- Surfaces must be sound, dry, and free of any laitance, curing agents or foreign matter.
- Silicone sealant requires atmospheric moisture to cure.
- Not recommended for below grade or horizontal applications.
- Some porous substrates may require grinding.
- Natural stone may require a primer to avoid staining.
- EIFS applications may require special installation methods – contact MM Systems.

COLOR OPTIONS

See Page 2 to select from 20 available colors or provide your own sample to be color matched.



Spectrem is a registered trademark of Tremco Incorporated, Beachwood, Ohio

PACKAGING

ColorJoint ESS Preformed Silicone Joint is supplied in 6-foot lengths. Each length incorporates a tongue and groove end to accommodate field splicing.

Silicone Sealant is supplied in 300 ml (10.15 fluid oz.) disposable cartridges that fit ordinary caulking guns.

STORAGE

All materials should be stored in a cool, dry location 60-80°F (15-27°C) prior to use.

PRECAUTIONS

Use with adequate ventilation. Uncured sealant may cause skin and eye irritation. In case of eye contact, immediately flush with water. Avoid prolonged or repeated skin contact. Read and follow labels and Material Safety Data Sheet before use.

MM[®] ColorJoint/ESS Color Chart

SILICONE COLORS

ColorJoint ESS colors are made from long lasting Tremco Spectrem[®] Silicone polymers that resists deterioration due to:

- Ultra Violet Rays
- Ozone
- Acid Rain
- Extreme Temperatures

Spectrem Silicone is a registered trademark of Tremco Incorporated, Beachwood, Ohio

STANDARD COLORS

ColorJoint ESS Standard Colors compounds are stocked and ready for manufacturing and delivery within two weeks of order placement. Lead times may vary – contact MM for promise dates.

CUSTOM COLORS

ColorJoint ESS Custom Colors compounds require additional manufacturing lead-time. Contact MM for availability and quantity minimums. Lead times may vary – contact MM for promise dates.

COLOR MATCHING

Color Matching is available with certain restrictions. Minimum quantities may be required. Contact MM Systems for additional information.

COLOR CHART

Color samples are as close as possible but actual product may vary slightly. For best results, submit color samples or swatches to our lab for color testing and matching.

STANDARD COLORS

White (textured)

Precast White (textured)

Off White (textured)

Limestone (textured)

Aluminum Stone (textured)

Bronze (textured)

Black (textured)

CUSTOM COLORS

Anodized Aluminum (textured)

Gray (textured)

Sandstone (textured)

Ivory (textured)

Champagne (textured)

Buff (textured)

Light Bronze (textured)

Dusty Rose (textured)

Adobe Tan (textured)

Rustic Brick (textured)

Blue Spruce (textured)

Charcoal (textured)

Dark Bronze (textured)



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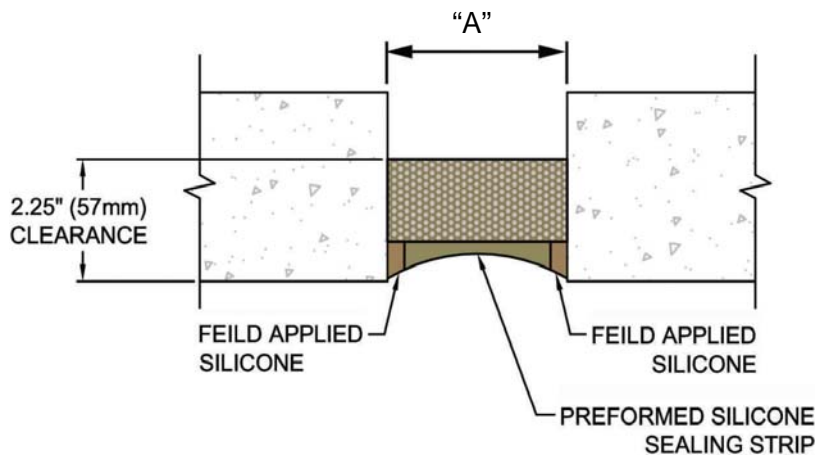
Spec Data

MM[®] ColorJoint / ESS Series Expansion Joint

SELECTION GUIDE

Model Number	Total Movement		Movement Range "A"				Installation Range					
			Min.		Max.		Min.		Mid.		Max.	
ESS-100	1.0	25	0.50	13	1.50	38	0.75	19	1.00	25	1.375	35
ESS-150	1.5	38	0.75	19	2.25	57	1.25	32	1.50	38	1.875	48
ESS-200	2.0	51	1.00	25	3.00	76	1.50	38	2.00	51	2.375	60
ESS-250	2.5	64	1.25	32	3.75	95	2.00	51	2.50	64	2.875	73
ESS-300	3.0	76	1.50	38	4.50	114	2.50	64	3.00	76	3.375	86
ESS-350	3.5	89	1.75	44	5.25	133	3.00	76	3.50	89	3.875	98
ESS-400	4.0	102	2.00	51	6.00	152	3.50	89	4.00	102	4.375	111
ESS-450	4.5	114	2.25	57	6.75	171	4.00	102	4.50	114	4.875	124
ESS-500	5.0	127	2.50	64	7.50	191	4.50	114	5.00	127	5.375	137
ESS-550	5.5	140	2.75	70	8.25	210	5.00	127	5.50	140	5.875	149
ESS-600	6.0	152	3.00	76	9.00	229	5.50	140	6.00	152	6.375	162
ESS-650	6.5	165	3.25	83	9.75	248	6.00	152	6.50	165	6.875	175
ESS-700	7.0	178	3.50	89	10.5	267	6.50	165	7.00	178	7.375	187

Dimensions are in **inches** (bold) and millimeters.
Contact MM Systems for additional sizes.



PHYSICAL PROPERTIES

Physical Properties / As Supplied:	Test Method	Typical Value
Tack-free time	ASTM C-679	30-60 minutes
Flow, Sag or Slump	ASTM C-639	Nil
Tooling Time	Skin formation	10-20 minutes
As Cured: After 14 days at 77°F (25°C) and 50% R.H.		
Hardness (Shore A)	ASTM C-661	15 points
Tensile strength at maximum elongation	ASTM D-412	1.38 MPa (200 psi)
Elongation	ASTM D-412	235-260%
Tensile Strength at 100% elongation	ASTM C-1135	0.24 MPa (35 psi)
Tear Strength	ASTM D-624	.7 kN/m (40 pli)
Peel Strength - Glass, Aluminum, Concrete	ASTM C-794	5.2 kN/m (30 pli)
Cyclic movement	ASTM C-719	±50%
Stain & Color Change	ASTM C-510	None

NOTE: The foregoing information is published as general information only. The listed properties and performance characteristics are approximate values while actual field results may vary.

INSTALLATION

1. Repair all unsound concrete. Joint opening sidewall interface areas must be clean and dry prior to installation.
2. The ColorJoint ESS is wider than the joint opening. Compress the polyurethane backer block into the expansion joint opening.
3. Recess the highest point of the silicone strip 1/4" (5mm).
4. Center the silicone strip creating equal reveals on each side.
5. Caulk reveal on each side of silicone strip with field-applied silicone. Tool immediately to insure firm contact and secure bond.
6. Apply silicone caulk at all butt splice locations.
7. Refer to ColorJoint ESS Installation Guideline for detailed step-by-step instructions.

LIMITED WARRANTY

MM Systems warrants the ESS System to be free of defects in material and conform to technical data listed. We make no warranty as to color or appearance. Since methods of application can affect performance and on site conditions are beyond our control, MM Systems makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. MM Systems sole obligation shall be, at its option, to replace, or to refund the purchase price of the quantity of system proved to be defective. In no event shall MM Systems be liable for any special, incidental, consequential, loss of profits or punitive damages. Other warranties may be available when installed by a MM Systems Certified Contractor.

MM Systems reserves the right to amend or withdraw information contained herein, without notice, and will not be liable for any inaccuracy or ambiguity of said information.

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