



MM[®] ColorJoint / ESS Series

Engineered Silicone Sealing System

SPECC DATA
 MM Systems Corporation • 50 MM Way, Pendergrass, GA 30567 • 800.241.3460 • www.mm-usa.com

DESCRIPTION

ColorJoint ESS is a high-performance engineered silicone expansion joint sealing system that combines a factory cured silicone face seal made from Pecora 890NST silicone fused to a cellular polyurethane-polyester binary backer block creating a monolithic seal. A field applied Pecora 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 (1/2" 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.
- Available in a wide range of colors.

LIMITATIONS

- Surfaces must be sound, dry, and free of any laitance, curing agents or foreign matter.
- Silicone edge 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 standard available colors or provide your own sample to be color matched.



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 Edge Reveal Sealant is supplied in 20 oz. (592 ml) sausages or 10.3 oz. (305-ml) cartridges.

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

PECORA[®] 890NST SILICONE COLORS



PRIMARY SILICONE

ColorJoint / ESS is manufactured with Pecora 890NST silicone as the primary silicone sealant based on its ability to resist deterioration due to: • Ultraviolet Rays • Ozone • Acid Rain • Extreme Temperatures

(ALTERNATE SILICONE) DOW CORNING[®] 790 COLORS

Contact MM Systems for alternate Dow Corning silicone colors to match specific projects.

(ALTERNATE SILICONE) TREMCO SPECTREM[®] COLORS

Contact MM Systems for alternate Tremco Spectrem silicone colors to match specific projects.

STANDARD COLORS

ColorJoint/ESS standard color 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 color 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 above 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.

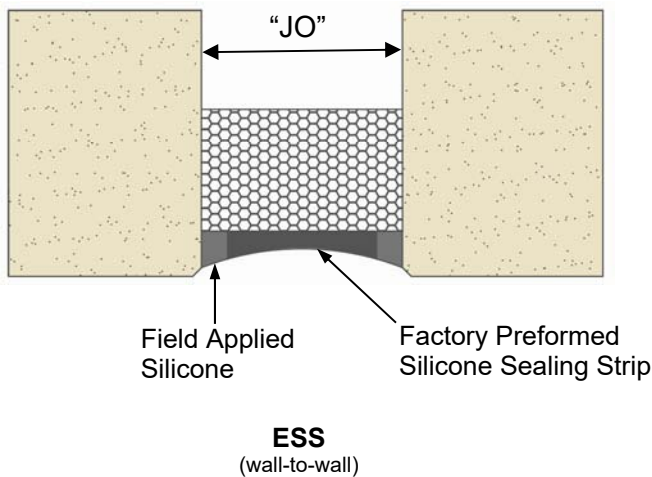


MM[®] ColorJoint / ESS Series Expansion Joint

SELECTION GUIDE

Model Number	Total Movement		Movement Range "JO"				Installation Range					
			Minimum		Maximum		Minimum		Nominal		Maximum	
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.



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.

Current Issue 2-26-19

PHYSICAL PROPERTIES

Physical Properties / As Supplied:	Test Method	Typical Value
Tack-free time	ASTM C-679	1-2 hours
Flow, Sag or Slump	ASTM C-639	<0.1
Tooling Time	Skin formation	15-25 minutes
Cure Time	Pecora	7-14 days
As Cured: After 7 days at 77°F (25°C) and 50% R.H.		
Hardness (Shore A)	ASTM C-661	20 points
Tensile strength at maximum elongation	ASTM D-412	1.38 MPa (200 psi)
Elongation	ASTM D-412	1000%
Modulus at 100% elongation	ASTM D-412	30 psi
Tear Strength	ASTM D-624	30 ppi
Peel Strength - Glass, Aluminum, Concrete	ASTM C-794	25 pli
Cyclic movement	ASTM C-719	+100% -50%
Stain & Color Change	ASTM C-1248	Pass

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 1/8"(3mm).
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.

