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CONTROL JOINTS EXPANSION ↔ CONTRACTION

TECHNICAL DESCRIPTION

SEALTIGHT ASPHALT Expansion Joint Filler is composed of a blend of asphalts, vegetable fibers and mineral fillers formed under heat and pressure between two asphalt-saturated liners. It is waterproof, permanent, flexible and self-sealing.

SEALTIGHT FIBRE Expansion Joint is composed of cellular fibers securely bonded together and uniformly saturated with asphalt to assure longevity. **FIBRE** Expansion Joint is versatile, resilient, flexible and non-extruding. When compressed to half of its original thickness, it will recover to a minimum of 70% of its original thickness.

SEALTIGHT CERAMAR Flexible Foam Expansion Joint Filler is composed of a unique blend of isomeric polymers in a very small, closed-cell structure. Gray in color, **CERAMAR** is a lightweight, highly flexible and resilient material offering recovery qualities of over 99%. This mini closed-cell structure is virtually non-absorbent. It can be wrapped or formed around curved or circular surfaces.

SEALTIGHT SPONGE RUBBER Expansion Joint is produced to a uniform thickness and density from gray-colored, top-quality, blown sponge rubber. It is easily compressed and has a recovery of 95% or more of the original thickness and a density of not less than 30 pounds per cubic foot (480.56 kg per cubic meter).

SEALTIGHT STANDARD CORK Expansion Joint Filler is produced from clean, selected, granulated cork bonded with a phenolic resin. It is highly resilient, will compress without extrusion and recover to 95% of its original thickness after 50% compression.

SEALTIGHT SELF-EXPANDING CORK Expansion Joint is formed and compressed under heat and pressure to permit expansion up to 140% of original thickness after installation which permits the filler to compensate for concrete shrinkage. Normal humidity conditions after installation activate the self-expanding properties of the cork.

MINIMIZE STRESS DAMAGE AND ENHANCE THE PERFORMANCE CAPABILITIES OF CONCRETE WITH PROPER JOINTING TECHNIQUES TO ACCOMMODATE EXPANSION-CONTRACTION CYCLES.

Concrete expands and contracts with temperature and moisture changes...as the temperature rises or the moisture content of the concrete increases, expansion takes place...as the temperature drops, the concrete will contract. The provision to accommodate movement at pre-determined locations with proper joint applications, prevents the development of stresses that could rupture the concrete.

Joint type and spacing will vary with each project according to the type of structure, climatic conditions and anticipated stresses in the concrete. The coefficient of thermal expansion in concrete is 0.0000055 per linear inch of concrete per degree Fahrenheit of temperature change, yielding approximately .66 inch of movement per 100 feet with a 100°F (38°C) temperature range.

To estimate expansion, multiply length in inches x number of degrees of anticipated temperature differential x 0.0000055. Use the resulting anticipated movement to determine correct thickness of the control joint and proper spacing for placement of the joint. Thinner joints (1/4", 3/8" or 1/2") (6.35mm, 9.53mm or 12.7mm) spaced at frequent intervals offer greater control than thicker joints spaced at greater intervals. The basic concept is to provide ample room for the concrete to expand and contract without creating damaging stresses and resultant cracking.

PACKAGING

See Specification Data and Size Information Chart on page 2 for details.

CONTINUED ON REVERSE SIDE

USES

SEALTIGHT ASPHALT Expansion Joint can be used in 80% of all control joint applications. It is ideally suited for joints in sidewalks, driveways, streets, single and multi-level floor slabs. Due to its unique self-sealing characteristic, no subsequent joint sealing is required.

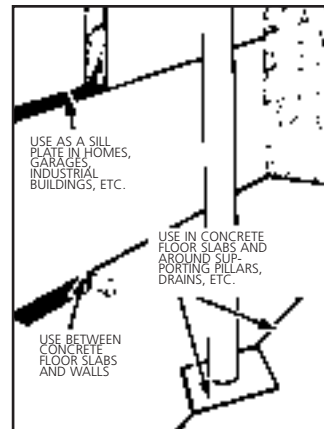
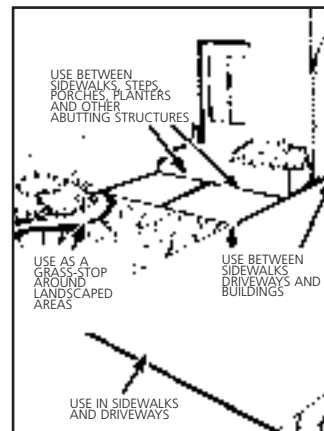
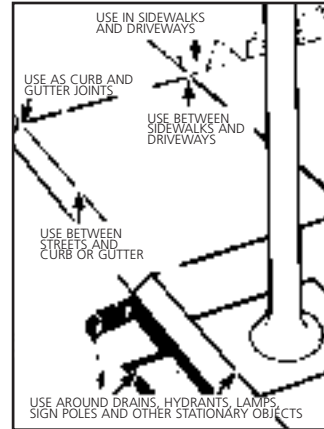
SEALTIGHT FIBRE Expansion Joint is ideal for use on highways, streets, airport runways, sidewalks, driveways, flatwork and scores of commercial and industrial applications. Use **SEALTIGHT SNAP CAP** to install 1/2" (12.7mm) below the concrete surface and seal with **SEALTIGHT #164, HI-SPEC** or **Cold-Applied SOF-SEAL** for maximum protection from water infiltration, weathering and to assure proper performance. Refer to Data Sheet Nos. 220, 221, and 224.

SEALTIGHT CERAMAR Flexible Foam Expansion Joint is gray in color and provides an excellent joint filler and back-up material for use in either horizontal or vertical applications where expansion and contraction movements must be accommodated. **CERAMAR** is compatible with all currently popular cold-applied sealants, caulks and hot-pour joint sealing compounds. It is lightweight, highly flexible and easy to cut or form in the field without waste. **CERAMAR** compresses easily for use with shrinkage-compensating concrete and it may be used to relieve stress and pressure in concrete pavements.

HIGHLY FUNCTIONAL JOINTING AND SEALING SYSTEM: Two excellent **SEALTIGHT** Products, **CERAMAR** and **GARDOX** Horizontal Sealant, may be used together to provide an excellent horizontal sealing system for plaza decks, sidewalks, driveways, commercial and industrial floors. Refer to **SEALTIGHT GARDOX** Data Sheet No. 226.

SEALTIGHT SPONGE RUBBER Expansion Joint is frequently used on bridge structures and sewage treatment plants that undergo rapid changes in temperature. Because of its excellent recovery capability, during wide temperature variations, **SPONGE RUBBER** is used around supporting pillars, drains, hydrants, lamp and sign posts, as well as in isolation applications or between materials having dissimilar coefficients of expansion.

SEALTIGHT STANDARD AND SELF-EXPANDING CORK Expansion Joints are used where high resiliency is needed, such as in sewage plants, flood walls, spillways, filtration plants and in numerous commercial and industrial applications. **SELF-EXPANDING CORK** is especially desirable where a constant friction-fit is required.





FEATURES AND BENEFITS

ASPHALT

- Non-absorbing
- Used in 80% of all control joint situations
- Protects against water infiltration
- Self sealing
- Permanent

FIBRE

- Non-extruding...versatile...offers a minimum of 70% recovery after compression
- A tough, lightweight, easy-to- use, semi-rigid joint filler available in strips and shapes fabricated to most requirements
- Easy to cut...dimensionally stable...not sticky in summer, or brittle in winter
- Manufactured in the U.S.A.
- Proven field performance

CERAMAR

- Gray color
- Lightweight, flexible foam...forms or wraps around curved or circular surfaces
- Cuts easily on the job with a razor knife...no breakage or waste
- Offers high resiliency and 99% recovery qualities...low compression values...non-extruding...virtually non-absorbent
- Resists ultraviolet degradation
- Non-impregnated...no staining or bleeding
- Bonds easily with common cartridge adhesives
- Non-gassing
- Compatible with all hot-or cold- applied sealants

SPONGE RUBBER, STANDARD CORK and SELF-EXPANDING CORK

- High resiliency with excellent recovery after compression
- Protects against water infiltration when properly sealed
- Easy to handle and install
- Offers isolation capabilities

CONTROL JOINT SPECIFICATION DATA AND SIZE INFORMATION

TYPE	CONFORMS TO OR MEETS SPECIFICATIONS	THICKNESS WIDTHS*	SLAB WIDTHS	STANDARD LENGTHS
ASPHALT	<ul style="list-style-type: none"> •ASTM D 994 •FEDERAL SPECIFICATION HH-F-341 F, TYPE III •AASHTO M 33 •FAA SPECIFICATION Item P-610-2.7 	1/4"(6.35mm) 3/8"(9.53mm) 1/2"(12.7mm) 3/4"(19.05mm) 1"(25.4mm)	36" (914.4mm)	5'(1.52m) 6'(1.83m) 10'(3.05m)
FIBRE	<ul style="list-style-type: none"> •ASTM D 1751 •AASHTO M 213 •FAA SPECIFICATION Item P-610-2.7 •Corps of Engineers CRD-C 508 •FEDERAL SPECIFICATION HH-F-341 F, Type I 	1/4"(6.35mm) 3/8"(9.53mm) 1/2"(12.7mm) 3/4"(19.05mm) 1"(25.4mm)	36", 48" (914.4mm, 1.22m)	10'(3.05m) Also available 5', 6', 12' (1.5, 1.83, 3.66m)
CERAMAR	<ul style="list-style-type: none"> •ASTM D 1752, Sections 5.1 through 5.4 with the compression requirement & modified to 10psi (.069 MPa) minimum and 25psi (.173 MPa) maximum 	1/4"(6.35mm) 3/8"(9.53mm) 1/2"(12.7mm) 3/4"(19.05mm) 1"(25.4mm)	48" (1.22m)	10'(3.05m)
SPONGE RUBBER	<ul style="list-style-type: none"> •ASTM D 1752, Type I •FEDERAL SPECIFICATION HH-F-341 F, TYPE II, Class A •AASHTO M 153, Type I •FAA SPECIFICATION Item P-610-2.7 •Corps of Engineers CRD-C 509, Type I 	1/4"(6.35mm) 3/8"(9.53mm) 1/2"(12.7mm) 3/4"(19.05mm) 1" (25.4mm)	36" (914.4mm)	10' (3.05m)
CORK	<ul style="list-style-type: none"> •ASTM D 1752, Type II •FEDERAL SPECIFICATION HH-F-341 F, TYPE II, Class B •AASHTO M 15.3, Type II •FAA SPECIFICATION Item P-610-2.7 •Corps of Engineers CRD-C 509, Type II 	1/4"(6.35mm) 3/8"(9.53mm) 1/2"(12.7mm) 3/4"(19.05mm) 1"(25.4mm)	36" (914.4mm)	10'(3.05m)
SELF-EXPANDING CORK	<ul style="list-style-type: none"> •ASTM D 1752, Type III •FEDERAL SPECIFICATION HH-F-341 F, TYPE II, Class C •AASHTO M 153, Type III •FAA SPECIFICATION Item P-610-2.7 •Corps of Engineers CRD-C 509, Type III 	1/2"(12.7mm) 3/4"(19.05mm) 1" (25.4mm)	36" (914.4mm)	5' (1.52m)

*Pre-cut joint furnished in any desired width

APPLICATION

SEALTIGHT Control Joint type and spacing will vary with each project according to the type of structure, climatic conditions and anticipated stresses in the concrete. Thinner joints of 1/4" (6.35mm), 3/8" (9.53mm) or 1/2" (12.7mm) spaced at frequent intervals offer greater control than thicker joints spaced at greater intervals. The basic objective is to provide ample room for the concrete to expand or contract without creating damaging stresses. The expansion joint should be positioned against forms at interrupting objects or columns, and against abutting structures prior to the placement of the concrete.

SEALTIGHT ASPHALT Expansion Joint should be recessed 1/4" (6.35mm) below the concrete surface. A sealant is not required. SEALTIGHT SPONGE RUBBER, CORK and SELF- EXPANDING CORK Expansion Joints should be recessed 1/2" (12.7mm) below the concrete surface to accept the joint sealant. To isolate filler from sealant, use SEALTIGHT SNAP CAP (Refer to Data Sheet No. 324).

SEALTIGHT Expansion Joints are positioned against the forms, at interrupting objects or columns, and against abutting structures prior to the placement of concrete and must be sealed with a suitable SEALTIGHT sealant. SEALTIGHT SNAP CAP should be installed flush with the surface. After removal of the top section of the SNAP CAP, the joint opening is ready for sealing.

A joint sealer is not required for ASPHALT Expansion Joint. For CORK and SELF-EXPANDING CORK Expansion Joints, suitable SEALTIGHT sealants recommended for horizontal applications are #164, HI-SPEC, POLY-JET, SOF-SEAL, GARDOX, POURTHANE, DECK-O-SEAL and SAFE-SEAL 3405. POURTHANE, GARDOX and DECK-O-SEAL are recommended for use with SEALTIGHT Sponge Rubber Expansion Joint. The recommended sealant for vertical applications is DECK-O-SEAL Gun Grade (formerly CM-60).

Application Tools



Utility Knife



Roofers Knife

PRECAUTIONS

Sheets and cut strips of ASPHALT Expansion Joint Fillers should be stored on a flat surface. Silicone Sealants are not recommended for use with SPONGE RUBBER Expansion Joint. NOTE: SELF-EXPANDING CORK is shipped in waterproof wrappings and confined on all sides by heavy crating. This packaging should not be damaged or opened until time of installation. Crates should not be stored for extended periods or exposed to weathering, heat or moisture.

Due to its light weight, CERAMAR may float and should be held in place by compression or with a mechanical attachment. Read and follow application information, precautions and Material Safety Data information.

FOR THE MOST CURRENT PRODUCT INFORMATION, VISIT OUR WEBSITE:
www.wrmeadows.com



LIMITED WARRANTY

"W.R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order." Read complete warranty. Copy furnished upon request.

Disclaimer

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