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Founded 1959. In North America since 1979.

27-year member: Sealant Waterproofing and Restoration Institute. What is SWRI?

Potential LEED Points Obtainable with the use of EMSEAL Preformed Sealant Systems

Resources:

LEED
US Green Building Council

Air Barrier Design
Air Barrier Association of America

Building Envelope
National Building Envelope Council

Knowledge Base:

Collaborative 3D Design
R-Value
Aggregate Loading
Buried Membranes
Hybrid Sealants
Stadium Joints
Sound Attenuation
Gaps In Air Barriers
Precured-Caulk&Backer
GC's Role in EJ Success
Extruded Seal Evolution

EMSEAL supports the use of sustainable and green building practices and energy efficient design in all new and remedial construction. EMSEAL manufactures preformed joints sealant systems that are used below grade, in parking, plaza, and stadium decks, building envelopes, and the interiors of the buildings which support this effort and contribute towards achieving LEED points.

Based on the standards set forth by the LEED Rating System 2.1 pre-formed sealants may contribute in the following categories:

Hybrid preformed joints sealant systems (COLORSEAL, BACKERSEAL, SEISMIC COLORSEAL) that are used in the building envelope and the interior of the building may contribute towards achieving LEED points. Based on the standards set forth by the LEED Rating System 2.1 pre-formed sealants may contribute in the following categories:

LOW-EMITTING MATERIALS: Adhesives & Sealants
The VOC of the silicone used in the EMSEAL COLORSEAL family of products is approximately 39 grams / liter. The BAAQMD (Bay Area Air Quality Management District) in Northern California - the most restrictive in the nation - require VOC's for Architectural sealants to be less than 250 grams / liter. This product easily meets this requirement.

EMSEAL's hybrid materials impregnated use emulsions of 100% acrylic that are water based, not solvent based and that do not contain any chlorinated wax or other deleterious chemicals AND to which the silicone is applied and cured before leaving the factory ensuring that any remaining solvent is only in trace amounts.

OPTIMIZE ENERGY PERFORMANCE—REDUCTION
According to the US Department of Energy, up to 40% of the costs to heat and cool a building are consumed due to air leakage through the building envelope. Preformed hybrid sealants designed to resist uncontrolled air movement through structural expansion joints and control joints through the building envelope can substantially reduce the amount of this leakage, resulting in reduced building energy consumption and are a key component of air-barrier assembly design.

In addition, preformed, impregnated foam sealants from EMSEAL feature R-Values that can restore or preserve continuity of insulation across a wall design thereby ensuring that thermal breaks are substantially eliminated.

INDOOR AIR QUALITY
Preformed hybrid sealants in the building envelope provide for watertight sealing. They seal the building from water intrusion which can mitigate against the formation of molds, which need moisture to grow. Preformed sealants also help seal against outside contaminants. This translates into helping HVAC systems achieve more precise control of the indoor environment by reducing the amount of uncontrolled outside air entering the building.

INNOVATION & DESIGN PROCESS: **Materials and Resources**
EMSEAL preformed foam sealants (COLORSEAL, BACKERSEAL, SEISMIC COLORSEAL) as well as THERMAFLEX solid-slab deck joints, MIGUTAN sandwich-slab systems, and MIGUTRANS interior floor joints conserve resources due to the long life-cycle of the products. Installations of all products are in place and functioning well in excess of 15 years. In comparison to other materials used to seal building envelopes and structural expansion joints with significantly shorter replacement periods this translates into a materials replacement cost savings in addition to the mitigation of seen and unseen instances of damage to building components and contents as a result of moisture ingress through unidentified sealant failure. This long life cycle postpones the need for retrofit work which, among other costs, uses energy, generates solid waste, and can release silica into the atmosphere from substrate preparation.

INNOVATION & DESIGN PROCESS: Sound Absorption
A wall with an expansion joint or control joint that is sealed with a preformed sealant from EMSEAL (COLORSEAL, BACKERSEAL, SEISMIC COLORSEAL) will have its sound absorption properties restored to a level approximate to that of a solid wall. To provide an effective acoustical barrier, the specific normal acoustic resistance value must amount to more than 100,000 Rayl/m. Impregnated foam seals at 20% of their original thickness have values in excess of 150,000 Rayl/m. Hybrid preformed foam sealants acting as an acoustical seal under these conditions would thus show superior sound absorbing properties.

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Construction Specifications Canada

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Expansion joints and joint sealants by EMSEAL

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