

TECHNICAL BULLETIN

DATE: APRIL 9, 2014

DOCUMENT NO: CLTB 00126

TO: Contractors, Distributors, Architects & Homeowners

FROM: CHEM LINK Technical Services Division 1-800-826-1681

SUBJECT: CHEM LINK Advantages

SHRINKAGE / SOLVENT FREE

CHEM LINK polyether formulations do not contain any solvent, and will not shrink when fully cured. Most urethane sealants contain small amounts of solvent, and they shrink slightly in proportion to their solvent content when cured. Stress to both the joint and sealant surfaces can occur due to shrinkage. With time, shrinkage causes bond failure and surface cracking.

FAST CURE

Chem Link polyether formulation are designed to skin over in less than thirty minutes at 72 degrees F, and 50% RH. This prevents dirt pick up that is often seen in many slow curing urethanes that can take several days to become tack free.

Low V.O.C.'s / Odor Free

CHEM LINK polyether formulations contain have a very low v.o.c. content, and are virtually odor free. These features enable the contractor to apply these sealants on schools, offices and residences without the concerns of adverse health effects or odors that can disrupt a work or living environment. Most urethanes and silicone sealants cannot make this claim.

ADHESION

DuraLink bonds aggressively to Kynar coated metal (PVDF). Urethanes do not bond well to Kynar coated metal. *CHEM LINK* sealants bond well to all construction materials (steel, aluminum, wood, masonry, glass, vinyl siding, etc.) with the exception of olefins such as polyethylene, polypropylene, Hypalon, and *TPO membranes. Our competitors' products do not bond well to these materials either.

*TPO Primer must be used for CHEM LINK products to bond with TPO membranes.

SUN-TANNING

Urethanes contain isocyanates which are subject to forming color bodies when exposed to sunlight. This is referred to as "sun-tanning" by the urethane formulators. *CHEM LINK* polyether formulation do not contain isocyanates, and are not subjected to sun-tanning.

DEEP CURES

Moisture curing urethanes will cure only to a depth of approximately one inch. C_{HEM} L_{INK} polyether formulation can cures to a depth of two inches. This process varies with atmospheric moisture and usually takes at least two weeks to cure to 2 inches in depth.

OUT-GASSING

When urethanes are applied over wet surfaces, or just before exposure to rain, the unreacted isocyanates in these products react with water to generate carbon dioxide gas. Under these conditions the sealed joint expands and becomes honeycombed with bubbles. *CHEM LINK* polyether formulations do not contain isocyanates, and therefore is unaffected by rain.

STYROFOAM & E.P.S. INSULATION

CHEM LINK polyether formulations do not contain organic solvent. Therefore, they are compatible with all forms of solvent sensitive foam.

CHEM LINK Technical Bulletins are for use by all CHEM LINK customers. Each Technical Bulletin is coded with a reference number and can be used to support various trade practices that are acceptable to, and have met CHEM LINK quality standards in effect at the time.

CHEM LINK INC reserves the right to amend or update these Technical Bulletins at any time.

CHEM LINK INC

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PACKAGING ADVANTAGES

Many competitor's products are packaged in cardboard cartridges that can be damaged by water during storage, causing the contents to harden. Damaged material costs and waste are often overlooked and must be considered when considering the actual cost of a product. *CHEM LINK* sealants are packaged in thick-walled plastic cartridges with a waxed inner wall for the plunger insertion, to prevent moisture infiltration. Moisture impermeable sausages is another popular packaging option.

Sturdy plastic Field Pack pails contain twelve 10.1 oz. cartridges, making job site handling and storage easy and convenient. Conventional cardboard boxes are also available for warehouse storage of C_{HEM} LINK sealants.

SEALANT DEMONSTRATION TIPS

When doing a "side by side" comparison, always open the *CHEM LINK* sealant cartridge and gun out a few beads on a substrate first to demonstrate the "non-odor". Then after confirming that feature, gun out the competitor's product. Products like OSI QUAD and NPC Solar Seal 900 are good for demonstration purposes.

Find a competitor's sealant that has a high solvent content like OSI QUAD, and two others, and apply a bead of sealant directly on a piece of EPS insulation, and do the same thing with any $C_{HEM} L_{INK}$ sealant. While the beads of sealant are still wet, press a piece of glass, or plexi-glass onto the EPS insulation, pressing the sealant beads flat. In a few hours the beads of sealant that have a high solvent content will "attack" or melt the EPS insulation.

M-1 Structural Sealant is commonly used for emergency repairs; even underwater. Fill an aluminum foil pie pan with some water and place a piece of any roofing membrane into the water, and then gun a bead of M-1 to the roofing membrane that is submerged in the water. Tool the bead of M-1 with a trowel or finger, showing that the M-1 bonds to the wet surface. It is important to practice this demo in advance with M-1 as well as some competitor's products, to find out which one's of theirs doesn't work; some do.

Apply a bead of DuraLink, DuraSil, or MetaLink to a Kynar coated metal sample, and allow it to cure for a few days. Do the same thing with a urethane sealant. The urethane sealant beads will not bond well to the Kynar coated metal.

LOW TEMPERATURE FACTORS

Although *CHEM LINK* polyether formulations are not recommended to be applied at temperatures below 32 F, they do cure faster at low temperatures than single part urethanes in most instances. *CHEM LINK* sealants will not be damaged chemically if stored or exposed to sub-freezing temperatures.

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