



Dudick inc.

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CAULK PSC

**ELASTOMERIC POLYSULFIDE
CAULK**

FEATURES

State of Florida:
Secondary Containment Approval EQ-510
Self-Priming
VOC Compliant

RECOMMENDED APPLICATIONS

SUGGESTED USES

To form a flexible, corrosion resistant seal on the exterior chime angle of field storage tanks.

As a concrete expansion joint compound where other conventional sealants may soften or fail due to solvents and chemical attack.

CHEMICAL RESISTANCE PROPERTIES

Aliphatic hydrocarbons including unleaded gasoline
Toluene and higher boiling aromatics
Fuel Oil
Crude Oil
Butyl Acetate and higher boiling esters
Ethanol and higher boiling alcohols
Mineral acids and bases

Note: While **Caulk PSC** is resistant to these materials, it should never be put into immersion service without being top-coated with **Protecto-Coat PS**.

TEMPERATURE LIMITS (METAL APPLICATIONS)

Maximum Service Temperature:
180°F in continuous service (dry). For immersion, contact Dudick Inc. for specific recommendations.

COLORS: Gray, Cirrus Gray, Clay Tan

PHYSICAL PROPERTIES

Color	Gray
Specific Gravity	1.4
Tensile Strength ASTM D-412	780 PSI
Elongation ASTM D-412	60%

*7 days @ 77°F

SPECIFICATIONS

Caulk PSC shall be a two component Polysulfide Elastomeric Caulk/Sealant as manufactured by Dudick, Inc. material shall be spray applied in accordance with the manufacturer's recommended practices.

THE CAULK PSC SYSTEM

Caulk PSC is a two-component, very high solids, elastomeric, chemically resistant sealant with the consistency of soft putty. Consists of base and activator, which produce a colored caulk when mixed.

Primer 67 is the recommended holding primer designed to prevent abrasive blasted steel from developing rust bloom prior to the application of the **Caulk PSC**. Concrete can be primed to aid in the "wetting out" required for good bonding and retarding outgassing.

* **Refer to Primer 67 bulletin**

Topcoat: The unique elastomeric polysulfide binder in **Caulk PSC** provides high film integrity, and excellent chemical resistance required for prolonged substrate protection.

ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL

COVERAGE PER GALLON (PRACTICAL)

Typical exterior Chime Angle – 12 linear ft./gallon (based on angle resting flush and a 3" foundation lip). Applications where the angle does not rest flush or where foundation lip is wider will result in significantly lower coverage rate.

Typical concrete joints (3/4" wide x 2" deep) – 10 linear ft./gallon

Quantities shown are for estimating purposes only. Actual field usage may vary.

SUGGESTED FILM BUILD (DFT)

Two inches maximum; will cure in thicker films, but produces significant exothermic heat build up. Typical chime angle sealant application will range from 1/2 inch over the angle to approximately 20 mils at the outer edges.

PACKAGING

Available in 15 gallon kits and 3 gallon kits of color and activator.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Metal: Metal surfaces must be abrasive blasted to an appropriate finish.

Immersion and heavy spillage service: White Metal, SSPC SP 5 or NACE #1, minimum 3.0 profile. Heavy non-immersion service (i.e. fumes and spillage): Near white, SSPC SP 10 or NACE #2, minimum 2.0-mil profile. Atmospheric service: Commercial SSPC SP 6 or NACE #3, minimum 2.0-mil profile.

Concrete: Concrete must be prepared mechanically to remove the surface laitance. Oils, grease or other contaminant must be removed prior to surface preparation. Concrete must be free of curing compounds and form release agents. Surface texture should be similar to 40-60 grit sandpaper or the visual standard, CSP-5 from the International Concrete Repair Institute **with pea gravel exposed**. The prepared surface should have a nominal tensile strength of 250 PSI per ASTM D-7243.

All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D-4263.

Additional surface preparation will be required if a 40-60-grit texture **with exposed pea gravel** is not achieved and the surface laitance not completely removed with the first mechanical preparation procedure.

Mechanical preparation removes laitance, exposing honeycombs or voids beneath the surface, which must be

filled with **Epoxy Grout EG**. (Refer to separate product bulletin).

PRIMING

The following Primers are compatible with **Caulk PSC**: Primer 67, Primer 67LV, Primer 67DPLV, Primer 67DTO & Primer 60.

APPLICATION SPECIFICATIONS

Substrate temperature for both concrete and metal must be between 50°F and 110°F.

Relative humidity must not exceed 85%.

Substrate temperature must be 5°F above the Dew Point.

CAULK PSC MIX RATIO (BY VOLUME)

BASE	1 gallon
ACTIVATOR	65 fl. oz.

For small volumes mix 2 parts colored based until uniform in color. Add 1 part activator to 2 parts colored base slowly with constant mixing. For large areas use heated plural component equipment.

Pot life of the mixed **Caulk PSC** will depend on the temperature. To prevent material waste and avoid damage to equipment, do not mix more material than can be used.

POT LIFE

45 minutes @ 77°F.

Higher temperatures will greatly decrease pot life and will make application by heated plural component spray mandatory.

Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.

APPLICATION SPECIFICATIONS

Apply by heated plural component spray for best results.

Pour and trowel.

Manufacturers listed below are a guide. Others may be used. Changes in pressure and tip size may be required to achieve proper application.



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HEATED PLURAL COMPONENT SPRAY

Use heated plural component equipment.

Pump: 45:1 (Graco)

Fluid Hose: 3/8" i.d. x 100' hose length. For longer hose, to avoid excessive pressure drop, use 1/2" i.d. up to 200' with 3/8" i.d. x 25' whip.

Airless Gun: Graco 207945

Minimum pressure to avoid fingering: 3000 psi at nozzle.

See Additional Comments #4

ADDITIONAL COMMENTS

1. At sealant temperatures below 70°F, material is too viscous to spray. Ideally, use heated plural component equipment. If heated plural component equipment is not available, preheat material to reduce viscosity. Contact Dudick for availability of plural component equipment.
2. It is possible to topcoat **Caulk PSC** with coatings such as Dudick epoxies. However, because **Caulk PSC** is highly elastomeric, it is likely any coatings applied on top will crack and therefore not recommended.
3. When applying **Caulk PSC** in situations where thickness' approach 2 inches, a considerable exotherm is possible. Care must be taken to ensure personal safety, as well as to allow sufficient time for the heat to dissipate and proper cure before application of any **Protecto-Coat PS**. Excessive voids to be filled should be packed with backer rod to fill area before application of **Caulk PSC**.
4. For more detailed information on plural component recommendations, please refer to Dudick High Performance Coatings Technical Advisory 96-1 Heated Plural Component Spray.
5. Use of a penetrating primer under coatings or linings for concrete can be an effective means of minimizing

outgassing. If the use of a penetrating primer is desired, use **Primer 67**. Please consult Dudick, Inc. for recommendations. Also, please refer to the **Primer 67** data sheet.

CURE CYCLE:

Cure Times (Hours @ 77°F, 25°C and 50% R.H.)

To Touch – 2 hours

To Recoat – 6 hours min / 48 hours max

Hard Dry – 12 hours

If these recoat times are exceeded, consult a Dudick representative; sanding or abrasive blasting may be required before the next coat. Recoat times are dramatically reduced when the coating is exposed to direct sunlight.

Application of **Caulk PSC** in direct sunlight may lead to blistering, pinholes, or wrinkling due to outgassing of air in the concrete and high substrate temperatures. Double priming, shading, or evening application may be required. Consult a Dudick representative.

CLEANING

Use **S-14 Thinner** to clean tools.

SHIPPING

Refer to Material Safety Data Sheets.

STORAGE

Warning: All Dudick products classified by DOT with white, yellow or red labels must not be mixed or stored together as an explosive reaction can occur.

All products should be stored in a cool, dry area, away from open flames, sparks, or other hazards.

When properly stored in their original, unopened containers at 50°F-75°F, **Caulk PSC** will have a six-month shelf life. Storage in direct sunlight or excessive heat will reduce working time and shelf life.

SAFETY

M.S.D.S: Material Safety Data Sheets must always be read before using products. **Caulk PSC** systems are intended for application by experienced, professional personnel. Dudick, Inc. can supply supervision to help determine that the surface has been properly prepared, the ingredients correctly mixed, and the materials properly and safely applied.

If **Caulk PSC** materials are to be applied by your own personnel or by a third party contractor, please be sure that they are aware of the following safety precautions:

- Exposure to resins and hardeners through direct skin contact and/or inhalation may cause severe dermatitis reactions in some people. Cleanliness of the skin and clothing is critical and must be of paramount concern.
- Fumes are flammable and heavier than air. Proper ventilation should be maintained to minimize breathing of concentrated fumes.
- Suitable respirators should be used during application.
- Safety glasses, gloves, and suitable protective clothing must be worn at all times during application.
- If contact with hardeners occurs, remove any clothing involved and flush the skin with flowing water. Discard the clothing. Do not attempt to wash and reuse it. **Caulk PSC** liquid can be removed with **S-14 Thinner**.
- Keep open flames and sparks away from the area where materials are being mixed and applied.
- If a rash occurs, remove the individual from the work area and seek a physician's care for dermatitis.
- In case of eye contact, flush with water for at least 15 minutes and consult a physician.
- If swallowed, do not induce vomiting; call a physician immediately.

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