

Technical Data Sheet

Neutral Cure Silicone

CSI Section No. 07 92 13

CHEM LINK

Construction & Maintenance

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Product Description

DuraSil is a neutral cure (RTV) silicone, adhesive sealant, designed for application on dissimilar materials such as glass, aluminum, steel, copper, masonry and many engineering plastics such as polycarbonate, vinyl (PVC), fiberglass (FRP), and acrylic. **DuraSil** is also well suited for difficult to bond surfaces such as Kynar 500® PVDF and Tedlar® PVF.

DuraSil's low odor, non corrosive, and neutral cure chemistry will not damage unprotected metals. **DuraSil** is highly elastic and low modulus with mechanical properties capable of low temperature flexibility and 50% joint movement. **DuraSil** is recommended for metal architecture, windows and doors, curtain wall construction, and glass block.

DuraSil develops properties rapidly and is effective in many industrial applications where strength, elasticity, adhesion, and speed of set are required.

Applicable Performance Standards

- ASTM C920, Type S, Grade NS, Class 50, Uses NT, T₂, M, G, A & O
- Federal Specification TT-S-00230-C Type II, Class A
- Corps of Engineers CRD-C-541, Type II, Class A
- Canadian Standards Board CAN 19, 13-M82

Regulatory Compliance

- Conforms to OTC Rule for Sealants
- Meets requirements of California Regs: CARB, BAAQMD and SCAQMD
- This product does not contain cancer causing chemicals listed in California Proposition 65
- Conforms to USDA Requirements for Non-food Contact

Green Standards:

- LEED 2.2 for New Construction and Major Renovations: Low Emitting Materials (Section 4.1) 1 Point
- NAHB Model Green Home Building Guidelines: 5 Global Impact Points
- VOC Content: less than 30 grams / liter ASTM D2369 EPA Method 24 (tested at 240°F / 115°C)

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Advantages

- Neutral Cure. Will not promote corrosion of metal
- Bonds to Kynar 500® PVDF coated metal
- Solvent free, 100% solids will not shrink
- Non-slump, applies vertically and overhead
- 10 minute skin over
- Color stability, will not suntan
- +/- 50% joint movement



Colors

White, Gray, Black & Translucent

* Color matching is available in batch quantity only

Packaging

- 10.1 oz (300 ml)
24 cartridges/carton, 45 cartons/pallet
- 2 and 5 gallon pails or 50 gallon drums
available by special order

Joint Preparation

Joint surfaces should be clean, dry and free from all contamination including: dirt, oils, grease, tar, wax, rust and any other substance that may inhibit the sealant's performance.

Joint Design

Install all joint applications per ASTM and SWRI recommendations and guidelines. Joints shall be designed with a depth to width ratio of 1:2 (joint depth one-half the width). Control the depth of the sealant by using a polyethylene backer rod that is 25% larger than the joint opening at standard temperature. To prevent three-point adhesion use a backer rod or bond breaker tape to ensure proper joint movement and a long lasting weatherproof seal. Where the joint configuration will not permit a backer rod, CHEM LINK recommends that an alternative bond breaker be used.

Joint Width Inches (mm)	Joint Depth Inches (mm)
1/4 - 1/2 (6-13)	1/4 (6)
1/2 - 3/4 (13-19)	1/4 - 3/8 (6-10)
3/4 - 1 (19-25)	3/8 - 1/2 (10-13)
1 - 2 (25-50)	1/2 (13)

CHEM LINK recommends an appropriate substrate primer to be used on high moving joints or dissimilar substrates which require increased adhesion properties.

Compatible Substrates*	
Kynar 500® PVDF Coated Metal	Tedlar® PVF
Galvanized Metal	Glass
Aluminum	EPS Foam
Copper	Engineered Plastics, PVC
Stainless Steel	Fiberglass FRP

**Test and evaluate to ensure adequate adhesion.*

Typical Physical Properties		
Gun Grade	Zero Slump	
Viscosity	550,000 cp +/- 150,000 cp	Brookfield RVF TF Spindle, 4 RPM, 73°F (23°C)
Density	8.3 lbs per gallon	ASTM D1475
Tack Free Time	10 min +/- 5 min	45 +/- 5 % R.H.
Elongation at Break	600%	ASTM D412
Hardness Shore A	10 +/-3	ASTM C661
Shear Strength	75 +/-5 psi	ASTM D1002
Tensile Strength	135 psi	ASTM D412
Low temp. flex	Pass -10°F (-23°C) 1/4 inch mandrel	ASTM D816
Shrinkage	No visible shrinkage after 14 days	
Service Temperature	-80°F to 400°F (-62°C to 204°C)	

Basic Uses	
Window and door frames	Siding
Metal Flashing	Weather Sealing
Roofing	Cove Joints
Curtain Walls	Parapets
Expansion joints	Transportation

Application Guidelines:

Glass

Prior to application remove any residual contamination by mechanical abrasion, sand blasting or power washing. Remove all release agents and old caulk. Dry all visible and standing water prior to applying **DuraSil**.

Metal

Prepare all metal to ensure maximum adhesion. Remove all rust, scale and residue by wire brushing to a bright metal sheen. Remove films, loose or inappropriate coatings and oils with an appropriate solvent such as alcohol.*

**CHEM LINK recommends that coated substrates be tested for adhesion prior to starting a project. Please contact Technical Services for specific application guidelines and recommendations.*

Wood

Wood should be clean, sound and dry prior to sealant application. Allow treated wood to weather for six months prior to application. Remove all coatings and paint (or test for compatibility) to ensure proper bonding. Do not use on fire retardant lumber.

Priming

In most instances **DuraSil** will not require a primer. However, certain applications or substrates may require a primer to ensure a long lasting bond and weatherproof seal. It is the applicator's responsibility to determine the need for a primer. CHEM LINK recommends a primer be used for any application where prolonged immersion is anticipated.

Clean-Up

Wet sealant can be removed using a solvent such as alcohol. Cured **DuraSil** can be removed by abrading or scraping the substrate.

Storage

Store original, unopened containers in a cool, dry area. Protect unopened containers from water, heat and direct sunlight. Elevated temperatures will reduce shelf life. **DuraSil** will not freeze.

Shelf Life

Twelve months from date of manufacture when stored at 70°F / 21°C with 50% relative humidity. High temperature and high relative humidity may significantly reduce shelf life.

Pails have a shelf life of six months.

Application Instructions

Remove all dirt, oil, loose paint, frost and other contamination from all working surfaces with alcohol DO NOT USE petroleum solvents such as mineral spirits or xylene. Maintain **DuraSil** at room temperature before applying to ensure easy gunning and tooling. Test and evaluate to ensure adequate adhesion. Carefully gun the sealant with a smooth, continuous bead. If tooling is needed, do so within fifteen minutes of application.

Caution

Avoid prolonged contact with skin. Uncured adhesive irritates eyes. In case of contact with eyes immediately flush with water. Call a physician. Please refer to the SDS for first aid information.

See www.chemlink.com for most current SDS .

KEEP OUT OF REACH OF CHILDREN.

Limitations

- In areas where prolonged chemical exposure is anticipated, contact Technical Services for recommendations.
- Allow treated wood to "cure" for six months prior to application per APA guidelines.
- Do not use in areas subject to continuous immersion.
- Do not store in elevated temperatures.
- Remove all coatings and sealers before application.
- Please contact customer service for application guidelines with temperatures below 32°F (0°C).
- Do not use on surfaces to be painted.
- Do not use on TPO without CHEM LINK TPO primer.
- Do not use on tub and tile applications.
- Staining may occur on limestone and porous substrates, test and evaluate before application.



NOTES:



Contractor Hot Line

800-826-1681

www.chemlink.com



All properties described in this document are derived from testing conducted in laboratory conditions. Properties and performance will vary depending on environmental conditions and application technique. Test and evaluate to determine appropriate usage. Visit www.chemlink.com for the Safety Data Sheet, Technical Data Guides and full warranty for this product.

LIMITED WARRANTY: **CHEM LINK** warrants this product's performance, provided it is properly stored and applied within 1 year. If this **CHEM LINK** material is proved to be defective, return remaining product and purchase receipt for refund or replacement of product exclusive of labor or cost of labor. This is the sole and exclusive remedy for defects or failure of this product. User must read and follow the direction of the current Technical Data Guide and SDS prior to product use. User determines suitability of product for intended use and assumes all risks. Manufacturer shall not be liable for damages (including consequential or incidental damages) in excess of the purchase price, except where such exclusion or limitation is prohibited by state law. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, STATUTORY, EXPRESS OR IMPLIED INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE; except for the above express warranty given by manufacturer, the product is sold with all faults. **CHEM LINK** SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS. This warranty gives you specific legal rights, and you may also have other rights in the U.S. which vary from state to state. For warranty claim information, call 800-826-1681.