

# Synthacalk™ GC2+

Two-Part Polysulfide Rubber Sealant



## SPECIFICATION DATA SHEET

### BASIC USES

- Synthacalk™ GC2+ provides a durable, elastomeric, weather-tight seal for caulking joints in commercial and industrial projects. It is particularly effective where exposure to solvents or chemicals is anticipated and for continuous immersion in liquids.

### MANUFACTURER

#### Pecora Corporation

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### PRODUCT DESCRIPTION

**Typical Applications:** Synthacalk™ GC2+ is a two part, polysulfide, nonsag sealant that maintains an effective bond between materials of similar or dissimilar porosities, surface texture, or expansion coefficients. Typical applications include fountains, cooling towers, fuel and chemical storage tanks, wastewater treatment (aerobic digesters only), potable water, and petrochemical plants.

**Limitations:** Synthacalk™ GC2+ is not recommended for:

- Use in swimming pools. (Pecora DynaTred polyurethane is the recommended sealant for use in swimming pools.)
- Structural or butt glazing.
- Use in wastewater treatment facilities that utilize anaerobic type digesters. Consult Pecora Technical Service for alternative product recommendations.
- Joints less than 1/4" (6 mm) in width or depth.
- Certain architectural paints and finishes without prior testing.

### TECHNICAL DATA

**Applicable Standards:** Synthacalk™ GC2+ meets or exceeds Federal Specification TT-S-00227E, Type II, Class A ASTM C920, Type M, Grade NS, Class 25, Use NT, T, M, G, A and I. Synthacalk™ GC2+ exceeds the test requirements of ASTM C1247 for sealants exposed to continuous immersion in liquids and NSF Standards 61, Section 6 for Joining and Sealing Materials.

Synthacalk™ GC2+ two component joint sealant is resistant to the effects of sunlight, rain, snow, ozone, aging, shrinkage, and the daily and seasonal cyclic changes in temperature, even after years of exposure.

### INSTALLATION

**Joint Design:** The minimum width of the joint should be 4 times the anticipated movement, but not less than 1/4" (6 mm). Maximum recommended width is 1" (24 mm). The depth of the joint should be no more than one-half the width without exceeding the minimum/maximum limits. Maximum depth should be 1/2" (12 mm). For additional information, contact Pecora's Technical Services Department.

**Surface Preparation:** Joint surface must be clean, dry, and free from oils, loose mortar, laitance, waterprooings, and other contaminants. A thorough grinding, sandblasting, or solvent cleaning may be required to expose clean, sound surfaces.

**Priming:** Synthacalk™ P53VOC primer must be applied to joint surfaces. Sealant must be applied after primer has dried, but within 8 hours after application.

**Joint Backing:** Backer rod is necessary to control depth of sealant and provide a base for tooling pressure. Backer rods should be closed-cell polyethylene foam. Use a size that will compress at least 25% when inserted into the joint. In joints too shallow for backer rod, a bond-breaker tape should be used to prevent three sided adhesion. (Typical bond breakers are polyethylene tape or coated papers).

**Application:** Synthacalk™ GC2+ is supplied in a non-sag consistency

### PACKAGING

- 1-1/2 gallon (3.8L) unit Consisting of base and activator nested in 2-gallon pail)

### COLOR

- Dark Gray

which will gun easily with conventional caulking equipment. Fill joint completely, using standard caulking equipment and tool immediately. Proper width to depth ratios must be maintained. Thorough blending of the base and activator components is essential for optimum sealant performance. Remove the Activator (Part A) from the Base (Part B) container. Also, be sure to remove the polyethylene sheet or tray. Before adding Part A, mix Part B with an Albion Engineering model 381-G04 mixing paddle (refer to illustration below) or comparable with a variable speed, heavy duty electric drill.



Then, add Part A to Part B and mix for six (6) minutes, or until the material is completely blended, scraping down the sides of the container and mixing paddle periodically during mixing.

**NOTE:** Do not mix base and activator components from one shipment with components from another.

**Application Life:** 1 hour at 75° F

### TYPICAL PHYSICAL PROPERTIES at 77°F (25°C), 50% RH

| Test Property                  | Value   | Test Procedure     |
|--------------------------------|---------|--------------------|
| Specific Gravity, mixed (g/ml) | 1.70    | ASTM D70           |
| Solids (%)                     | 100     | ASTM C1250         |
| Joint Movement (%)             | +/-25   | ASTM C719          |
| Hardness (Shore A)             | 25-30   | ASTM C661          |
| Work Life (hours)              | 1       | Pecora Corporation |
| Tack-Free (hours)              | <24     | ASTM C679          |
| Elongation (%)                 | 500-550 | ASTM D412          |
| Tensile Strength (psi)         | 150-200 | ASTM D412          |
| 100% Modulus (psi)             | 50      | ASTM D412          |
| 200% Modulus (psi)             | 80      | ASTM D412          |

(24° C); higher temperatures shorten application life. Ambient temperatures should range between 50° F (10° C) and 110° F (43° C).

**Shelf Life:** One year in original, unopened containers stored at temperatures lower than 80°F (26°C).

**Tooling:** Tooling is recommended immediately after application to ensure full contact with the joint interfaces. Dry tooling is preferred. Care should be taken to avoid contamination of open joints.

**Clean Up:** Remove Synthacalk™ GC2+ from equipment before it cures. Recommended solvents are MEK\*, Toluene\* or Xylene\*. These solvents are not effective after cure. Cured material may be removed by cutting with sharp tools, sandpapering or softening with chlorinated solvents\*.

*\*(Solvents mentioned are toxic and flammable. Observe solvent manufacturer's precautions and refer to Safety Data Sheets).*

Allow Synthacalk™ GC2+ to attain a complete cure before filling caulked area with water (7 days minimum). Surface of Synthacalk™ GC2+ can be painted after complete cure.

**Precautions:** Wear gloves or a barrier hand cream. Avoid direct contact with material; do not take internally. Remove promptly from skin with a commercial hand cleaner before eating or smoking. Avoid inhaling vapors.

**FOR PROFESSIONAL USE ONLY. KEEP OUT OF THE REACH OF CHILDREN.**

### AVAILABILITY AND COST

Pecora products are available from our plants and warehouses, or from stocking distributors in all major cities. For the name and telephone number of your nearest representative call 800-523-6688 or visit our website at [www.pecora.com](http://www.pecora.com).

### WARRANTY

Pecora Corporation warrants its products to be free of defects. Under this warranty, we will provide, at no charge, replacement

materials for, or refund the purchase price of, any product proven to be defective when installed in accordance with our published recommendations and in an application considered by us as suitable for this product. This warranty is in lieu of any and all other warranties, expressed or implied, and in no case will Pecora be liable for incidental or consequential damages.

### MAINTENANCE

If the sealant is damaged and the bond is intact, cut out the damaged area and recaulk. No primer is required. If the bond has been affected, remove the sealant, clean

and prepare the joint in accordance with the instructions under "INSTALLATION".

### TECHNICAL SERVICES

Pecora representatives are available to assist you in selecting an appropriate product and to provide on-site application instructions or to conduct jobsite inspections. For further information and assistance, please call our Technical Services department at 215-723-6051 or 800-523-6688.

### FILING SYSTEMS

**CSI MasterFormat Designation:**  
-07 92 00 Joint Sealants

#### CHEMICAL RESISTANCE CHART

This data should only be used as a guide. It is recommended to test the material under actual (or at least simulated) service conditions before specification and/or use.

##### Rating Key:

R = Recommended

C = Intermittent Contact; not continuous immersion

NR = Not Recommended

|                                    |                                     |                                     |
|------------------------------------|-------------------------------------|-------------------------------------|
| C Acetic Acid, 10%                 | R Ferrous Sulfate, 10%              | R N-Butyl Alcohol                   |
| C Acetic Acid, 50%                 | R Fluoboric Acid, 10%               | R NaphthaVM & P                     |
| NR Acetic Acid, Glacial            | NR Formic Acid, 90%                 | R Naphthalene Oil                   |
| C Acetone                          | R Fuel Oil/Diesel Fuel              | NR Nitric Acid, 10%                 |
| C Acrylonitrile                    | NR 2-Furaldehyde                    | NR Nitric Acid, 30%                 |
| R Aluminum Sulfate Solution, 50%   | R Gasoline, Leaded                  | NR Nitric Acid, 60%                 |
| R Ammonium Chloride Solution, 50%  | R Gasoline, Unleaded                | R Oleic Acid                        |
| C Ammonium Hydroxide Solution, 28% | R Gasol                             | R Oxalic Acid, 20%                  |
| R Ammonium Perchlorate, 15%        | NR Glycol Ether EM                  | R Paraffinic Oil                    |
| R Ammonium Perchlorate, 50%        | R Heptane                           | Pesticides                          |
| R Ammonium Polysulfate             | R Herbicides                        | R —Arrosolo 33E                     |
| R Ammonium Sulfate Solution, 30%   | R — Marksman                        | R —Eradicane 67E                    |
| R Amyl Alcohol                     | R — Banvel                          | R Phenolic Resins                   |
| NR Arcosolv PM Acetate             | C — Dual 8E                         | R Phosphoric Acid, 50%              |
| R ASTM Fuel A                      | C — Bicep 6L                        | C Phosphoric Acid, 60%              |
| R ASTM Fuel B                      | R —Aatrex 4L                        | C Phosphoric Acid, 75%              |
| R ASTM Fuel C                      | R —Prowl 33 EC                      | R Phthalic Anhydride, 38% slurry    |
| R ASTM Fuel D                      | R —Tri-4                            | Pickling Solution                   |
| R Barium Hydroxide, 10%            | R —Treflan                          | NR — 20% Nitric Acid, 4% HF         |
| NR Benzene                         | R — Serve 24E                       | NR — 17% Nitric Acid, 4% HF         |
| NR Benzoflex 9-88                  | R — Sonalan E.C.                    | R Potassium Carbonate               |
| NR Benzoic Acid, 5%                | R Hexane                            | R Potassium Hydroxide Solution, 25% |
| R Borax Solutions, 25%             | R Hexane Glycol                     | R Potassium Hydroxide, 50%          |
| R Boric Acid Solution, 20%         | C Hydrochloric Acid, 20%            | NR Potassium Permanganate, 6%       |
| R Borohydride Solution             | NR Hydrochloric Acid, 37%           | R Propylene Glycol                  |
| R 1-4 Butanediol                   | R Hydrofluoric Acid, 5%             | NR Propylene Oxide                  |
| NR Butyl Benzyl Phthalate          | R Hydrofluoric Acid, 10%            | R SAE 10 Oil                        |
| R Butyl Cellosolve                 | R Hydrofluoric Acid, 23%            | R Shell Tellus Oil 46               |
| NR Butyl Cellosolve Acetate        | R Hydrogen Peroxide, 3%             | R Skydrol 500B                      |
| R Butyl Dioxitol                   | R Hydrogen Peroxide, 20%            | R Soap Solutions                    |
| R Butyl Oxitol                     | R Hydrogen Peroxide, 35%            | R Sodium Bicarbonate Solution, 25%  |
| R Calcium Chloride Solutions, 50%  | R Isobutyl Alcohol                  | R Sodium Chloride Solution, 25%     |
| R Calcium Hydroxide, 20%           | R Isobutyl Isobutrylate             | C Sodium Cyanide, 5%                |
| R Calcium Hypochlorite, 50%        | NR Isophorone, 97%                  | R Sodium Hydroxide, 50%             |
| NR Carbon Disulfide                | R Isopropyl Alcohol                 | R Sodium Hydroxide, 50% @ 120°F     |
| C Carbon Tetrachloride             | C Isopropylamine                    | NR Sodium Hypochlorite, 5%          |
| NR Carbitol Acetate                | R Isotearic Acid                    | NR Sodium Hypochlorite, 8%          |
| R Caustic Potash, 45%              | R Jet Fuel (See ASTM Fuels)         | R Sodium Sulfide, 25%               |
| NR Cellosolve Acetate              | R Kerosene                          | NR Solvent 150                      |
| R Chlorinated Water, 1ppm          | R Lacquer Solvents                  | R Stearic Acid, 20%                 |
| R Chlorinated Water, 10ppm         | R Linseed Oil                       | NR Styrene                          |
| R Chlorinated Water, 100ppm        | R Lubricating Oils                  | R Sulfuric Acid, 20%                |
| NR Chromic Acid, 15%               | R Magnesium Chloride Solution, 20%  | NR Sulfuric Acid, 50%               |
| NR Chromic Acid, 35%               | R Magnesium Hydroxide Solution, 30% | NR Sulfuric Acid, 66%               |
| R Copper Sulfate Solution, 20%     | NR Malathion 50                     | NR Sulfuric Acid, 8% @ 120°F        |
| NR Creosote                        | R Maleic Anhydride, 25% Slurry      | NR Tetrahydrofuran                  |
| NR Cumene Hydroperoxide            | NR 2-Mercaptoethanol                | NR Tetrahydrofurfuryl Alcohol       |
| R Cyclohexane                      | R Methanol                          | R Texanol                           |
| R Dibutyl Carbitol                 | C Methyl Acrylate                   | NR Toluene                          |
| R Diethylene Glycol                | C Methyl Carbitol                   | R Transmission Fluid                |
| NR Dimethyl Formamide              | NR Methyl Cellosolve Acetate        | C 1,1,1 Trichloroethane             |
| NR Epichlorohydrin                 | C Methyl Ethyl Ketone               | C Triton X100                       |
| C Ethyl Acetate                    | C Methyl Methacrylate               | C Urea, 10%                         |
| C Ethyl Acrylate                   | C Methyl n-Amyl Ketone              | R Urea Ammonium Nitrate, 32%        |
| R Ethyl Alcohol                    | NR Methylene Chloride               | C Vinylidene Chloride               |
| R 2-Ethyl Hexyl Acrylate           | R Methyl Tert-Butyl Ether, 98%      | R Vinyl Acetate                     |
| NR Ethylene Dichloride             | R Mineral Spirits                   | C Xylene                            |
| R Ethylene Glycol                  | R Motor Oil 10W/40                  | R Zinc Chloride, 10%                |
| C Ferric Chloride, 50%             | R N-Butyl Acrylate                  | R Zinc Nitrate, 17%                 |