

# Synthacalk™ GC2+

Two-Part Polysulfide Rubber Sealant

## Specification Data Sheet



### 1. 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 are anticipated.

### 2. MANUFACTURER

Pecora Corporation  
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Harleysville, PA 19438  
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800-523-6688  
Fax: 215-721-0286  
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### 3. PRODUCT DESCRIPTION

**Typical Applications:** Synthacalk™ GC2+ is a two part, polysulfide, non sag sealant that maintains an effective bond between materials of similar or dissimilar porosities, surface texture, or expansion coefficients. Typical applications include swimming pools, fountains, cooling towers fuel and chemical storage tanks, wastewater treatment and petrochemical plants.

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

- Structural or butt glazing.
- Joints less than 1/4" (6 mm) in width or depth.
- Certain architectural paints and finishes without prior testing.

#### PACKAGING

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

#### COLOR

- Dark Grey

### 4. TECHNICAL DATA

**Applicable Standards:** Synthacalk™ GC2+ meets or exceeds all aspects of Federal Specification TT-S-00227E, Type II, Class A in all respects except Section 3.5.7, "Stain and Color Change", ASTM

C920, Type M, Grade NS, Class 25, Use, NT, T, M, G, A, with the exception of ASTM C510 "Stain and Color Change", Also 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.

### 5. 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 interface 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™ P53+ 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 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 a Pecora #2 mixing paddle with a low 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 (24° C); higher temperatures shorten application life. Substrate temperature must 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).

### 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

**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 Material 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.**

**6. 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.

**7. 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 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.

**8. 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".

**9. 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 assistance call our Technical Service Department at 800-523-6688.

**10. FILING SYSTEMS**

- Sweet's Catalog File: www.sweets.com
- General Building
  - 07100 Waterproofing
  - 07920 Sealants
- Civil Engineering
  - 07100 Waterproofing



**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 Fue	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 Gasohol	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	Herbicides	R —Arrosolo 3.3E
R Ammonium Sulfate Solution, 30%	R — Marksman	R — Eradicane 6.7E
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 3.3 EC	R Phthalic Andydride, 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 Borohydrate Solution	NR Hydrochloric Acid, 37%	R Propylene Glycol
R 1-4 Butanediol	R Hydrofluoric Acid, 5%	NR Propylene Oxide
NR Butyl Benzyl Phthalate	R Hydroflouric Acid, 10%	R SAE 10 Oil
R Butyl Cellulosolve	R Hydroflouric Acid, 23%	R Shell Tellus Oil 46
NR Butyl Cellulosolve 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 Bicarbontae Solution, 25%
R Calcium Chloride Solutions, 50%	R Isobutyl Alcohol	R Sodium Chloride Solution, 25%
R Calcium Hydroxide, 20%	R Isobutyl Isobutryate	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 ChlorinatedWater, 1ppm	R Lacquer Solvents	R Stearic Acid, 20%
R ChlorinatedWater, 10ppm	R Linseed Oil	NR Styrene
R ChlorinatedWater, 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 Carbotal	C Methyl Acrylate	NR Toulene
R Diethylene Glycol	C Methyl Carbitol	R Transmission Fluid
NR Dimethyl Formanide	NR Methyl Cellulosolve Acetate	C 1, 1, 1 Trichloroethane
NR Epichlorohydrin	C Methyl Ethyl Ketone	C Triton X100
C Ethyl Acetate	C Methyl Methacrylate	R 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%



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