

TECHNICAL DATA SHEET

**DESCRIPTION**

ProPatch VO is two component, moisture tolerant, high modulus, high strength, structural epoxy paste adhesive available in cartridge and bulk systems. Its specially formulated non-sag properties are perfect for overhead and vertical repairs.

**USE**

Ideal for overhead and vertical repairs. Can be used as a Pick-Proof Sealant and a capping paste for structural crack injection.

**FEATURES**

- High-strength adhesive
- Ideal for overhead and vertical repairs
- Moisture tolerant
- Non-sag epoxy paste consistency
- Easy mix formula in a 1:1 ratio by volume
- UL Certified – Drinking Water System Components to NSF/ANSI 61
- Acceptable for use in USDA facilities



**WATER QUALITY**

**PROPERTIES**

ASTM C881 & AASHTO M235 Type I, II, IV & V Grade 3 Class B & C.

Withstands freeze thaw conditions per ASTM C666 - Procedure B.

Consistency Non-sag paste

Mix Ratio: 1 to 1

Color: Part A-White, Part B- Dark Gray, Mixed- Light Gray

See Appendix A for test results

**Packaging**

PRODUCT CODE	PACKAGE	SIZE	
		Gallons/ Ounces	Liters
100948	Cans	102 oz	3 L
100949	Pails	3	11.36 L

**STORAGE**

The material should be stored at 40°-95°F (5°-35°C). Shelf life is 24 months when stored in unopened, dry conditions.

**Surface Preparation:**

Surface to be bonded must be clean and sound. Remove dust, dirt, grease, laitance, curing compounds and other foreign matter. Abrasive blasting and/or mechanical removal methods are recommended. New concrete should be a minimum of 21-28 days old.

**PATCHING**

Surface preparation in accordance with ICRI Guidelines is recommended. The edges of the patches should be saw-cut to prevent feather edging. Best results will be obtained by abrasive blasting the area to be repaired, providing uniform depth, a high surface profile and a firm bonding area.

**Mixing**

Precondition the product to at least 70 - 75 °F (21 - 24 °C) prior to use. Cold product may become too thick. Product that is too warm will set up faster.

**CARTRIDGE INSTRUCTIONS**

Remove the protective cap from the adhesive cartridge and insert the cartridge into the recommended dispensing tool. Before attaching mixing nozzle, purge the cartridge by dispensing a small amount of material until both components are flowing evenly. After the cartridge has been purged, screw on the proper mixing nozzle. Do not modify mixing nozzle prior to dispensing adhesive. The product should be a uniform light gray color with no streaks. The adhesive must be properly mixed in order to perform as published. When changing cartridges, never re-use nozzles. A new nozzle should be used with each new cartridge.

**BULK MIXING INSTRUCTIONS**

Thoroughly stir Part B with a Jiffy Mixer paddle or similar before mixing Parts A and B together.

Place the total contents of Part B (hardener) into Part A pail (resin) OR proportion equal parts by volume of both Part A and Part B into a clean pail. Be sure that the components are mixed at an exact 1:1 ratio by volume. Mix thoroughly on low speed (400 – 600 rpm) using a Jiffy Mixer paddle or similar. Carefully scrape the sides and the bottom of the container while mixing. Keep the paddle below the surface of the material to avoid entrapping air. Proper mixing will take at least 3 minutes and when well mixed the material will be free of streaks or lumps. Mix only the amount of material that can be used before the pot life expires.

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### Placement:

#### PATCHING

Cut into the sound concrete using a grinder with a diamond blade or tuck point diamond grinding wheel and prepare the area to be repaired as noted above under Surface Preparation. Place the mixed neat material into the repair area and smooth out with a trowel to create a smooth surface. In vertical and overhead patching, a maximum depth of 2" (51 mm) is recommended. Patches deeper than 2" (51 mm) may require reinforcement or anchorage.

#### CAPPING PASTE FOR STRUCTURAL CRACK INJECTION

Place and secure injection ports or port bases with the ProPatch VO taking care not to leave any pinholes, noting that the port spacing should be approximately 6 - 12 in. (152 – 305 mm) apart. Do not allow the epoxy to block the passage between the port and the crack face. Place additional ProPatch VO between the ports making sure the entire crack is sealed off anywhere it is visible and accessible and make sure the ports are securely fastened to the concrete so they will not leak when injected under pressure.

Allow the ProPatch VO to cure a minimum of 4 hours at 75 °F (24 °C) before injecting the crack.

#### PICK-PROOF SEALANT

Surface or void must be clean and sound prior to application. Remove all dirt, oil, debris, grease, loose paint or dust. Use sandpaper or a wire brush to roughen any smooth bonding surface. Apply an applicable size bead of material around the area to be sealed. A rounded edge spatula should be used for tooling when used in cracks or joints. For filling voids, dispense into deepest area first filling from the back to front until entire void is filled. In thinner cracks it may be necessary to use an additional flat mixing tool such as a putty knife to aid in working the adhesive deeper into the area to be repaired.

### CLEAN UP

Tools and Equipment: Clean before the epoxy sets. Use xylene or Citrus Cleaner J48. Hardened material requires mechanical/abrasive methods.

### LIMITATIONS

#### FOR PROFESSIONAL USE ONLY

Do not thin with solvents.

Surface and ambient temperature must be 40°F (5°C) or above.

Do not expose stored product to cold or freezing temperature (below 35°F, 2°C) for any length of time.

Minimum age of concrete must be 21-28 days from date of placement.

Not intended to repair cracks that are subject to movement.

### PRECAUTIONS

#### READ SDS PRIOR TO USING PRODUCT

- Component A – Irritant
- Component B – Corrosive
- Product is a strong sensitizer
- Use with adequate ventilation
- Wear protective clothing, gloves and eye protection (goggles, safety glasses and/or face shield)
- Keep out of the reach of children
- Do not take internally
- In case of ingestion, seek medical help immediately
- May cause skin irritation upon contact, especially prolonged or repeated. If skin contact occurs, wash immediately with soap and water and seek medical help as needed.
- If eye contact occurs, flush immediately with clean water and seek medical help as needed
- Dispose of waste material in accordance with federal, state and local requirements
- Cured epoxy resins are innocuous

### MANUFACTURER

Dayton Superior Corporation  
1125 Byers Road  
Miamisburg, OH 45342  
Customer Service: 888-977-9600  
Technical Services: 877-266-7732  
Website: [www.daytonsuperior.com](http://www.daytonsuperior.com)

## TECHNICAL DATA SHEET

### WARRANTY

Dayton Superior Corporation ("Dayton") warrants for 12 months from the date of manufacture or for the duration of the published product shelf life, whichever is less, that at the time of shipment by Dayton, the product is free of manufacturing defects and conforms to Dayton's product properties in force on the date of acceptance by Dayton of the order. Dayton shall only be liable under this warranty if the product has been applied, used, and stored in accordance with Dayton's instructions, especially surface preparation and installation, in force on the date of acceptance by Dayton of the order. The purchaser must examine the product when received and promptly notify Dayton in writing of any non-conformity before the product is used and no later than 30 days after such non-conformity is first discovered. If Dayton, in its sole discretion, determines that the product breached the above warranty, it will, in its sole discretion, replace the non-conforming product, refund the purchase price or issue a credit in the amount of the purchase price. This is the sole and exclusive remedy for breach of this warranty. Only a Dayton officer is authorized to modify this warranty. The information in this data sheet supersedes all other sales information received by the customer during the sales process. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.

Dayton shall not be liable in contract or in tort (including, without limitation, negligence, strict liability or otherwise) for loss of sales, revenues or profits; cost of capital or funds; business interruption or cost of downtime, loss of use, damage to or loss of use of other property (real or personal); failure to realize expected savings; frustration of economic or business expectations; claims by third parties (other than for bodily injury), or economic losses of any kind; or for any special, incidental, indirect, consequential, punitive or exemplary damages arising in any way out of the performance of, or failure to perform, its obligations under any contract for sale of product, even if Dayton could foresee or has been advised of the possibility of such damages. The Parties expressly agree that these limitations on damages are allocations of risk constituting, in part, the consideration for this contract, and also that such limitations shall survive the determination of any court of competent jurisdiction that any remedy provided in these terms or available at law fails of its essential purpose.

## TECHNICAL DATA SHEET

**Appendix A**

 TABLE 1: ProPatch VO Performance to ASTM C881-15<sup>1,2</sup>

Property	Cure Time	ASTM Standard	Units	Sample Conditioning Temperature		
				Class B <sup>3</sup>		Class C
				40 °F (4 °C)	55°F (13 °C)	75 °F (24 °C)
Gel Time – 60 Gram Mass	----	C881	Min	244	230	68
Pot Life <sup>4,5</sup>		----		18		
Tack Free or Open Time <sup>4</sup> @ 75 °F (24 °C)		D2377	Hr	2 - 3		
Viscosity		C881	----	Non-sag paste		
Compressive Yield Strength	7 day	D695	PSI (MPa)	4,790 (33.0)	13,760 (94.9)	13,850 (95.5)
Compressive Modulus			PSI (MPa)	398,100 (2,745)	693,700 (4,783)	743,300 (5,125)
Tensile Strength <sup>6</sup>		D638	PSI (MPa)	----		3,600 (25)
Tensile Elongation <sup>6</sup>			%	----		0.4
Shore D Hardness <sup>4</sup>	1 day	D2240	----	85		
Bond Strength Hardened to Hardened Concrete	2 day	C882	PSI (MPa)	2,180 (15.0)	2,650 (18.3)	2,180 (15.0)
	14 day			3,000 (20.7)	3,130 (21.6)	2,630 (18.1)
Bond Strength Fresh to Hardened Concrete				1,960 (13.5)		
Bond Strength Fresh Concrete to Steel				1,890 (13.0)		
Heat Deflection Temperature	7 day	D648	°F (°C)	138 (59)		
Resistance to Rapid Freeze and Thawing - Procedure B	100 cycles	C666	----	Pass		
Water Absorption	14 day	D570		0.23		
Linear Coefficient of Shrinkage	----	D2566	%	0.0007		

1. Results based on testing conducted on a representative lot(s) of product. Average results will vary according to the tolerances of the given property.

2. Results may vary due to environmental factors such as temperature, moisture and type of substrate.

3. Approved for Class B at temperatures ≥ 55 °F (13 °C).

4. Property not referenced in ASTM C881.

5. Pot life is measured as the workable and applicable time of 102 fl. oz. (3.0L) when mixed at 75 °F (24 °C). Pot life lengthens to 21 minutes when mixed in a 500 gram mass @ 75 °F (24 °C).

6. Tensile & Elongation are optional requirements for ASTM C881 Grade 3.