POLY PCF-45
FAST-SETTING, 2-COMPONENT PATCH & CRACK FILLER

DESCRIPTION:
Smith’s POLY PCF-45 is a very low viscosity, fast-setting 2-component Polyurethane ideally suited for saturating horizontal cracks (non-moving) and to fill spalls/pop-outs, holes, gouges and other surface imperfections in concrete. Convenient 1:1 mix ratio allows for easy mixing and pouring either neat into fine cracks and smaller voids or over sand in larger voids. No primer is necessary. Diamond grind once hard cured.

Smith’s POLY PCF-45 may also be used as a pit grout in concrete polishing process where UV stability is not a concern.

Accepts heavy traffic within an hour at 72°F and 50% humidity.

RECOMMENDED USES:
- Bonds to Concrete
- Fills Cracks (non-moving), Spalls, Pop-outs & Voids
- Freezer & Chiller floor repairs
- Above, On or Below Grade Applications
- Rebuilding Control Joints
- For Interior & Exterior applications

HIGHLIGHTS:
- Apply from Feather Edge to any depth
- Chemical Resistant
- Tenacious Bond to properly prepared concrete
- Good Impact Resistance & Load Transfer
- Fast Return to Service
  - Pot Life = 4 minutes
  - Diamond Grind (Dry) = Once Cured Hard
- Resists Aging & Fatigue
- Suppresses Minor Cracks from Telegraphing
- Suitable for use over In-floor Radiant Heat systems
- Low Viscosity – Penetrates Hairline Cracks as well as dry sand or pea stone for deep repairs
- No Priming Necessary
- No red label required for shipping
- Compliant with VOC Regulations in the following regions: OTC, CARB, SCAQMD, LADCO, AIM, CANADA

AVAILABLE KIT SIZES:
- 1 Quart kit
- 1 Gallon Kit
- 10 Gallon Kit

SHELF LIFE:
2 Years in original, unopened containers. 1 month once opened

COLORS: Light Beige; Accepts Smith’s ISC colorant at 10% add

POTLIFE & CURE TIMES (72°F / 50% Relative Humidity):
- Cure time is affected by temperature and humidity. Cooler temperatures will extend the cure rate.
- Pot Life = 4 minutes
- Tack Free = 25-30 minutes
- Diamond Grind (Dry) = Once Cured Hard
- Recount = Once Diamond Ground
- Heavy Traffic = 60 minutes
- Full Chemical Resistance = 2-3 days

CURED COATING PROPERTIES (DRY FILM):

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesion to Concrete</td>
<td>ASTM D4541</td>
<td>650 psi (Concrete Fails)</td>
</tr>
<tr>
<td>Elongation</td>
<td>ASTM D638</td>
<td>6 %</td>
</tr>
<tr>
<td>Hardness (Shore D)</td>
<td>ASTM D2240</td>
<td>64D</td>
</tr>
<tr>
<td>Viscosity – Mixed</td>
<td>ASTM D2196</td>
<td>10 cPs</td>
</tr>
<tr>
<td>Volume Solids (Mixed)</td>
<td>ASTM D2196</td>
<td>53.9%</td>
</tr>
<tr>
<td>Mix Ratio - Volume</td>
<td></td>
<td>1:1</td>
</tr>
<tr>
<td>V.O.C.’s (Mixed)</td>
<td>ASTM D3960</td>
<td>0 g/L</td>
</tr>
</tbody>
</table>

APPROXIMATE COVERAGE (DRY FILM):
- 1 mixed gallon yields 231 cubic feet neat (as supplied, without aggregate extension)
- Crack filling coverage varies depending on size of the void/crack being filled as well as overfilling waste

STORAGE:
Indoors between 50°F - 85°F
*Protect from storage in extremely cold conditions under 15°F

INSTALLATION TEMPERATURE RANGE:
50°F (10°C) to 120°F (49°C) with 20% to 90% Ambient Humidity

LIMITATIONS:
- NOT UV Stable – Finish will yellow and chalk over time with Ultra Violet Light exposure

NECESSARY TOOLS & EQUIPMENT:
- PPE (i.e. gloves, safety glasses, respirators) recommended while handling
- Paint mixing stick
- Measuring vessels (for equal volume measurement)
- Hard plastic mixing vessel
- Dry Sand for bottom of open cracks and deeper patching
- Joint Saw or angle grinder to chase cracks
- Vacuum Shroud Edge Grinder with segmented diamond cup wheel to grind flush to surrounding surface elevations
- Cleaning Solvent (Acetone, MEK, or Xylene)

NOTE: The Mix station and all application equipment should be ready for immediate use prior to mixing any product. Higher temperatures and humidity will shorten pot life.
POLY PCF-45

FAST-SETTING, 2-COMPONENT PATCH & CRACK FILLER

INSPECT THE SUBSTRATE: Ensure the substrate is sound and solid as well as free of any contaminants that may act as a bond breaker, such as oil/grease, loose paint, wax, silicone, etc.

CHECK FOR MOISTURE: Following moisture guidelines for the finished product(s) or system(s) which are to be applied over Smith’s POLY PCF-45. When applying a moisture sensitive finish over Smith’s POLY PCF-45, test concrete for moisture vapor transmission via both the Calcium Chloride (ASTM F1869) and In-situ Relative Humidity (ASTM F2170) methods.

Smith’s POLY PCF-45 may be used as for crack filler and patching of voids prior to priming with Smith’s Epoxy MAC100 or Smith’s Epoxy MAC125 for moisture vapor emission remediation applications.

Smith Paint Products is strictly a product manufacturer and does NOT offer any testing or analysis but may be able to offer guidance to an appropriate testing lab or third party inspector. When in doubt, hire a qualified third party testing firm.

CONTAMINATION OF SUBSTRATE: Concrete is porous and can become contaminated with oils, chemical from spills, etc. which act as a bond breaker. Determine if a potential bond breaker exists and a proper course of remediation. Contact Smith Paint Products for remedial recommendations while following local regulations regarding contaminant and disposal.

OIL CONTAMINATION: Use Smith’s Oil Clean to remove oils, (i.e. petroleum, synthetic and food oils) from the surface of the concrete prior to mechanical preparation.

SUBSTRATE PREPARATION: Carefully read and understand the following directions before beginning project as these directions are general guidelines only and are NOT meant to cover every application or environment. Should any remaining questions or concerns exist after thorough research, please contact Smith’s for technical assistance at 1-800-466-8781.

ACI recommends a new concrete slabs to cure for a minimum of 60-90 days or longer at 70°F to allow the slab to shrink. Filling of cracks in a new concrete pour prior to the ACI recommended cure time may cause new cracks to develop.

MIXING: Only mix enough product that can be placed and finished in roughly 4 minutes to allow for an appropriate flow time and penetration. Keep a wet edge between batches. Warmer temperatures and high humidity will reduce working time.

Volume Mixing: 1 Part A : 1 Part B

When volume mixing, pour out the appropriate volume of each component into separate measuring cups to ensure a proper volume mix ratio then, in a separate mixing vessel, pour in each measured component then mix for 15-120 seconds using a paint stir stick.

APPLICATION: Once mixed, work quickly to pour out the mixed Smith’s POLY PCF-45 slightly overfilling the voids with the intent to diamond grind smooth when hard cured. A finishing towel or drywall tape knife may be used for patching and skim-coating applications. Dependent upon the depth of cracks, holes and voids, may be filled in 1 or 2 pours with 10-20 minutes between lifts.

Deep voids should be filled with dry sand to bulk up the depression and reduce product from leaking through cavities. Should any sink holes occur, reapply POLY PCF-45 as necessary once the crack filler has hardened for approximately 10-20 minutes to allow the first layer to begin to gel and begin to seal off the holes causing the leak.

FINISHING: The excess Smith’s POLY PCF-45 may be removed via diamond grinding to smooth out the surface flush with the surrounding substrate elevation. The optimal cure time prior to grinding will vary due to the temperature and thickness. As a reference point at 72°F and 50% RH test an area to determine if the POLY PCF-45 is ready for finishing:

Approximate Cure Time after Placement for Finishing:

- Dry Diamond Grinding: 15-60 minutes
- Wet Diamond Grinding: 60-90 minutes

CLEAN-UP: Tools should be cleaned immediately while still fresh with wet product using a solvent such as Acetone, MEK or Xylene. Once the set, Smith’s POLY PCF-45 will need to be removed mechanically from floors via grinding or razor shaving. Cured POLY PCF-45 on tools would require mechanically scraping or possibly the use of a soldiering torch (i.e. MAP gas) to overheat the material for easier scraping from metal tools.

OPTIONAL – SUBSEQUENT LAYERS: Once Smith’s POLY PCF-45 is ground smooth and flush to surrounding surface elevations, subsequent layers/finishes may occur if desired.

LIMITED LIABILITY: Liability is limited to replacement of defectively manufactured product of the same type and cost of the originally purchased product upon presentation of a valid, fully paid invoice at the time of a claim. No warranty shall be granted for outstanding invoices or for accounts with unpaid balances until paid in full. No damages, whether consequential, liquidated or other, shall be provided under this Limitation of Liability and Limited Warranty. Should a product defect be suspected at the time of application, cease use of the product immediately and notify Smith Paint Products for investigation as you will be responsible for the cost to repair or replace any work performed with product(s) suspected of defect. Record batch codes and save all products you purchased in order for any warranty to occur allow with the invoice that matches said quantity. Defects determined after installation must be reported to Smith Paint Products within 10 business days of discovery.

Upon information, belief and to the best of our knowledge, the information contained herein is true accurate as of the date of issuance of this particular document and any and all information conveyed, whether expressed or implied. Is subject to change without prior notice. We guarantee our products to confirm to Smith Paint Products written documentation. Smith Paint Products assumes no liability for coverage, performance, injury results from use, misuse or usage not described in any promotional materials or regulatory infracon determined by using our products. The applicator assumes all liability for use and local regulatory compliance. Promotional materials are not a supplementation to any product purchase agreement, nor should such documents be considered a type of contract, if any is reduce to writing.

NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SMITH PAINT PRODUCTS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. DO NOT PURCHASE AND USE THIS PRODUCT IF YOU HAVE NOT AGREED TO THE ABOVE TERMS.