ONYX CONCRETE COATINGS

PRODUCT TECHNICAL DATA SHEET

POLYMER PATCH

Advanced Coating Systems

HIGH STRENGTH, FAST CURING, TWO-COMPONENT POLYUREA

GENERAL PRODUCT DESCRIPTION

Polymer Patch Low Odor is an advanced, high strength, fast curing, two-component polymer, concrete patching system with a little to no odor. It is formulated to quickly rebuild damaged control joints, spalled concrete and cracks,especially in large warehouses in need of slab repair. It is versatile and can be installed in temperatures as low as 28°F, making it ideal for cold storage. It is also often used for as patching for standard Grind/Seals, 2K Grind/Seals, and Concrete Polishing Systems, especially in high traffic areas where traditional cementitious patching doesn't hold up. However, it can also be used to patch concrete under most ONYX base systems.

Polymer Patch ultra low viscosity allows the material to flow and wick into small cracks and cavities for a superior bond. Polymer Patch Low Odor is the product of choice when downtime is costly and quick return to service is critical. Repairs are ready to accept foot traffic in as little as 1-3 minutes, and heavy traffic in as little as 20-30 minutes.

ADVANTAGES

- Fast cure (20 minutes at 70°F)
- Self-priming
- Low temperature cure
- VOC Compliant, 0 g/l
- Oil and fuel resistant
- Withstands heavy forklift traffic
- Self leveling
- Little to no odor

PRODUCT DATA

Volumetric Ratio:	1 To 1
Solids:	100%
Hardness, Astm D 2240	Shore D 70
Mixed Viscosity @ 75°F	20 Cps
Application Temperature:	-20-90°F Must be 5° Above the Dew Point
Thinning:	Not Required
Pot Life:	1-3 Minutes
Cure Time:	15-20 Minutes (Traffic) 75°F
Shelf Life:	12 Months

PACKAGING

Polymer Patch Low Odor is available in 2 different kit sizes:

	Part A	Part B
2 Gallon Kit	1 gal.	1 gal.
10 Gallon Kit	5 gal.	5 gal.

COLORS

Polymer Patch Low Odor is available in medium gray, charcoal, black, white, brick red, and safety yellow. Other colors are available on special request and may require more time and additional costs. Please note that natural or non-pigmented material will cure to an ivory-white rather than clear. If the material is curing ivory and not the specified color, the pigment has settled to the container bottom. Be sure to always shake or mix well before use.

APPLICATIONS

- Concrete spalls and cracks
- Rebuild control joints
- Rapid repairs prior to coating/sealer
- Fast repair of cold room floors
- Grade matching
- Bond cracked slabs
- Resistance to most petro chemicals

MIXING

The mix ratio of Polymer Patch is 1 to 1. Pre-mix the Part B for 45-60 seconds until uniform. If the pre-mixed, pigmented Part B sits for more than 7-8 minutes, it will settle and become an ivory-white shade rather than the selected color. If the pre-mixed pigment Part B does sit for more than 10 minutes, then pre-mix again. Mix only the volume of material that can be applied within 1-2 minutes. Mix equal parts of A and B with a drill and jiffy mixer for 30 seconds and apply immediately. The product's ultra low viscosity helps insure easy mixing. If mixing with sand to use a mortar/slurry, mix the A and B first, and then add the sand, and then mix for another 30 seconds. Immediately apply to repair. Aggregate may also be pre-placed in the repair area. If so, add the mixed resin to completely saturate it. Broadcast additional aggregate as needed.
The mixed material may be used to repair concrete in the concrete in the following 3 conditions: (i) small crackers / control joints, (ii) larger cracks / control joints, (iii) divots and larger holes.

SMALL CRACKS / CONTROL JOINTS – SURFACE PREPATION / APPLICATION

Open the top of the crack / control joint using a 4-5" angle grinder and a standard crack chaser blade. Vacuum out any debris and loose concrete. Do not allow for any standing water, as it will react with the Polymer Patch, causing bubbling and a weak, unsightly repair. If applying a coating system over the Polymer Patch / newly repaired substrate, make sure to see the Surface Preparation guidelines and information in the technical data sheet of that products and system to be used.

Mix a small volume of product and fill a squeeze bottle with a pointed nozzle to neatly apply the material into the crack. Refill as needed until the crack is filled flush with the surface. If you overfill the crack, use a sharp blade scraper to "shave" off the overfilled material immediately after it gels. If you wait too long to shave, the excess material will become hard and require grinding to make flush.

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LARGER CRACKS / CONTROL JOINTS – SURFACE PREPARATION / APPLICATION

Open both sides of the crack / control joint using either a 4-5" angle grinder or skill saw. Skill saws are recommended when there is more linear footage for ease of installation. V-shaped diamond blades are recommended to ensure the best preparation. Remove any loose, unsound material. Vacuum out any debris and loose concrete. Do not allow for any standing water, as it will react with the Polymer Patch, causing bubbling and a weak, unsightly repair. If applying a coating system over the Polymer Patch / newly repaired substrate, make sure to see the Surface Preparation guidelines and information in the technical data sheet of that products and system to be used.

If using sand to pre-fill the bottom of the crack prior to application, apply a first application of Polymer Patch to bind the sand and seal the bottom of the crack. A second application may be required to fill the crack. If applying a coating system over the Polymer Patch / newly repaired surface, add aggregate and/or sprinkle in sand as needed to repair the void to produce a rough surface and ensure proper bonding. If not applying a coating system over the Polymer Patch / newly repaired substrate, overfill the patch, then use a sharp blade scraper to “shave” off the overfilled material immediately after it gels. If you wait too long to shave, the excess material will become hard and require grinding to make flush.

DIVOTS AND LARGER HOLES – SURFACE PREPARATION / APPLICATION

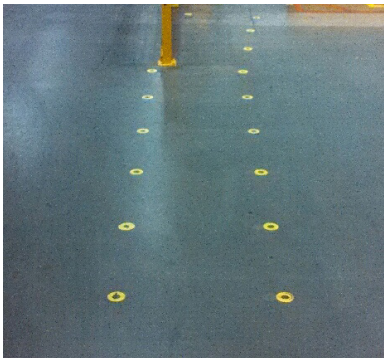
Remove all loose and unsound material. Use chipping hammers to achieve the best bond an angle grinder may not be able to reach those areas. If applying a coating system over the Polymer Patch / newly repaired substrate, shotblasting is the best method to reach all areas of the divots/holes. Make sure to remove all contaminants to achieve the best bond. Vacuum out all dust and debris. Vacuum out any debris and loose concrete. Do not allow for any standing water, as it will react with the Polymer Patch, causing bubbling and a weak, unsightly repair. If applying a coating system over the Polymer Patch / newly repaired substrate, make sure to see the Surface Preparation guidelines and information in the technical data sheet of that products and system to be used.

Mix up and pour enough Polymer Patch to fill approximately 1/3 of the void. Immediately start adding clean dry sand to the liquid. For very large holes, you may add pea gravel. The larger the void the larger the aggregate you can use. Be sure to add enough aggregate to produce a very rough surface for proper bonding Completely saturate all of the aggregate. It is better to have more resin than not enough. If installing a coating system of the Polymer Patch / newly repaired surface, and you must add another layer with aggregate after the first application cures, be sure to add enough aggregate to produce a very rough surface for proper bonding, filling the void with Polymer Patch resin and aggregate to the top or a little above the surface. You may sprinkle aggregate on top to achieve a rougher surface. If not applying a coating system over the Polymer Patch / newly repaired substrate, overfill the patch, then use a sharp blade scraper to “shave” off the overfilled material immediately after it gels. If you wait too long to shave, the excess material will become hard and require grinding to make flush.

PRODUCT LIMITATION

Note: The Isocyanate component of this product will react with free water to form CO2 gas. Make sure that all cracks are dry and contain no water. Otherwise, foaming/bubbling may occur. Also, if the material has been left unsealed, it can absorb moisture from the air. To test for water contamination, mix a small amount in a clean dry mixing cup. If it cures foam/bubble free, the material is good to apply.

Polymer Patch can be used on all control joints (within the same slab). If Polymer Patch is used on an expansion/construction joint (2 slabs which meet together and hence move), the Polymer Patch is susceptible to cracking. If applying a coating system over the slab, wait until the coating has been applied and cured, then saw cut through the coating over the construction joints.



MITCHELL DOTS

Mitchell Dots are circular, bright colored, permanent markings in the concrete. They are used in high traffic areas where conventional marking will not survive. They are installed using a 4”-4.5” angle grinder with a diamond cup wheel. By holding the grinder in one place to form a donut shaped cut-out or inlay in the slab. The engraved area is then filled with Polymer Patch Low Odor that has been manufactured in the selected color (usually safety yellow). Since the dots are inlaid flush or below the slab, they never wear off resulting in bright, and -long lasting, easy to maintain floor markings.

CLEANUP

Polymer Patch Low Odor while in a liquid state may be cleaned up with water and degreaser. Otherwise a strong solvent may be required while Polymer Patch Low Odor is setting up.

WARRANTY

ONYX Concrete Coatings products are warranted for 1 year after date of manufacture. Please refer to the Onyx Concrete Coating’s Limited Material Warranty for additional clarification.

SAFETY

Consult Polymer Patch Low Odor safety data sheet. Avoid Polymer Patch Low Odor contact with eyes and skin. Use with adequate ventilation. Always wear protective eyeware, clothing, and gloves. Safety always comes first.

MAINTENANCE

Refer to the ONYX Maintenance and Cleaning Guidelines.