In repair and restoration work it is recommended to first take care of the cause before repairing the effect. Many times a condition survey is needed to determine the cause(s) and to plan the proper, most cost-effective approach to correct the problem.

In repair and restoration surface preparation is very important. The best of products with poor surface preparation is no better than the lesser product with the proper surface preparation.

Surface Preparation

- I.K.E.
  - Identify what the problem is
  - Know and understand the problem
  - Eradicate the cause before addressing the effect
- Surface Preparation: A necessity for a successful application:
  - Water-blast, sand-blast, scabbler, scarifier, grinder, needle gun, hammer chisels, shot-blasting
  - Provide a high profile substrate for a good mechanical bond
  - Remove excessive or complex edge conditions
  - Have a defined edge...saw cut or use a grinding wheel to create a clean defined edge to which you will work the repair mortar
- SSD...concrete substrate to be in a Saturated-Surface-Dry condition so that the concrete will not absorb water from the repair mortar
- Mixing methods: drill & paddle, mortar mixer, concrete mixer (when stone added), pump, by hand
- When mixing less than a full bag always first mix the bag so that a representative sample is obtained.
- Add the powder to the water
- Water requirements stay the same regardless if the material is used neat or if pea gravel is used
- Application methods: by hand, form & pump, form & pour, dry packing, pneumatic (spraying), pneumatic (shotcrete)
- ICRI Guideline No. 03732 and the ACI 546 Concrete Repair Guide provides an in-depth description of various types of surface preps, substrate condition surveys, and selection & specifying methods of surface preparation

DAYTON SUPERIOR REPAIR MORTARS

GENERAL USE REPAIRS:

ReCrete™ 5 Minute & ReCrete™ 20 Minute

- Cost-effective repair mortar with no polymers or fibers
- Min. thickness 1/8", max. 2", neat
- Extend with clean washed stone > 2" per Data Sheet
- Can be modified with Acrylic Bonding Agent J40 1:1, for enhanced performance

Polyfast™ FS

- Rapid setting vertical and overhead applications
- Polymer modified
- Min. thickness 1/4", max. 2", neat
- Extend with clean washed stone > 2" per Data Sheet
- Easily shaped and finished
- Pleasing concrete gray color

VERTICAL / OVERHEAD:

Architectural Finish™

- Polymer modified
- Use for rubbing, smoothing, resurfacing repairing vertical surfaces
- Colored blended to a light gray
- 30 minute working time
- Featheredge to 1/8" application depth

Perma Patch VO™

- One component W/water or 2-component W/approved admixture
- High strength
- Min. thickness 1/4", max. 2" neat
- Formulated for vertical / overhead applications
- High bond strength
- Shrinkage compensated
- Can be sprayed or pumped through small volume pneumatic equipment
- Rapid strength gain
- Can be extended with aggregate for deep applications
- Very low permeability

HD-25 VO

- Designed for vertical and overhead applications
- Polymer modified
- Min. thickness 1/4", max. 2" neat
- Extend with clean washed stone > 2" per Data Sheet
- More rapid initial strength gain than Polyfast
Guide to Concrete Repair

Civil / Structural VO
- Vertical or overhead applications
- Formulated for use in spray applications using the wet process
- Can also be applied by hand or trowel
- Contains a corrosion inhibitor
- Very high compressive strengths

FORM & POUR:
Civil / Structural FpX
- For form & pour or horizontal applications
- Extended with blended aggregate
- Contains a corrosion inhibitor
- Long working time

Perma Patch™ F/P
- Self finishing
- Up to 40 minute working time
- Ideal for form & pour or form & pump applications

HORIZONTAL:
Thin Resurfacer
- Polymer modified
- Min. thickness 1/16”, max. 1/2” and cannot be extended
- Substitute 1 qt. Of water with J-40 for enhanced performance

Special Patch
- Shrinkage compensated
- High early strength
- Good resistance to freeze-thaw and impact

HD-50
- Pourable consistency
- Very rapid setting
- Polymer modified, fiber reinforced
- Min. thickness 1/2”, max. 2”, neat
- Extend with clean washed stone > 2” per Data Sheet
- Capable of being extended up to 80% (40# stone) per bag
- Most popular DOT approved repair mortar

Pave Patch 3000
- Pourable consistency
- Shrinkage compensated
- Very rapid setting
- Min. thickness 1/2”, max. 2”, neat
- Extend with clean washed stone > 2” per Data Sheet
- Capable of being extended up to 60% (40# stone) per bag

RESINOUS BASED REPAIR MORTARS
Rapid Resin Repair
- 100% solids 3-component low modulus repair material
- Non-shrink
- Chemically resistant
- Cures from -20°F to 130°F
- Meets USDA requirements
- "0" VOC
- Low odor

Sure Patch™
- 100% solids 3-component low modulus repair material
- Trowelable
- Rapid strength gain
- Moisture insensitive

EPOXY/CEMENTOUS BONDING AGENT/REBAR PRIMER
Perma Prime™ 3C
- True breathable bonding agent
- Long open time
- Epoxy-modified with corrosion inhibitor

SPECIALTY REPAIRS:
Snaplugs®
- High Strength cement compound
- Plugs for tie cone holes
- Gray in color
- Saves time and labor

Anchor All
- Shrinkage compensated
- Pourable
- Fast setting
- Ideal for posts and dowels

Waterstop
- Rapid setting hydraulic cement
- For plugging & stopping water or fluid leaks in concrete or CMU
- Initial set 2½ min., final set 3½ min.
- Non-corrosive, non-rusting

Visit www.daytonsuperior.com for the most up to date technical information