



NORTHERN DESIGN

ARCHITECTURAL PRECAST & CAST STONE

RECOMMENDED MAINTENANCE, CLEANING & PATCHING PROCEDURES

MAINTENANCE:

- 1) Precast products should be protected during construction in order to prevent chipping, cracking & staining.
- 2) Once construction is complete, the owner may choose to regularly clean the façade in order to prevent the effects of weathering & aging. Power washing with a fan spray from a 4 – 5 foot distance is a safe method of cleaning the installed stone. Masonry cleaners may be introduced, if hot water does not do the trick. Northern Design does not recommend any paints or stains for the finished precast, however, silane sealers may be utilized in order to combat the effects of weathering / water damage. These coatings usually need to be re-applied every 3 - 5 years, depending on the brand of sealer. Best to consult Northern Design before performing any maintenance or repair on these products.

CLEANING:

- 1) Consult Northern Design when confronted with precast that has been stained. All stains / blemishes need to be treated independently; different techniques may need to be utilized in order to rectify each particular issue. For example, simple dirt stains can be cleaned using a power washer or just soap and water. Difficult stains, such as grease, hydraulic oil, caulking, roof tar and the like may need to be treated with special chemical detergents, acid washed or sandblasted and may need to be patched over.
- 2) As for basic cleaning, washing with soap and water is recommended. Acid washing can be more effective, however, the acid should be heavily diluted in order to prevent burning / streaking. Another risk to acid washing is that the appearance / finish may vary if every piece is not cleaned with the same process, exposing the same level of aggregate.

PATCHING:

- 1) Patching is a very effective way to reduce the visual impact of chips and/or blemishes. Please follow the instructions below in order to achieve the best results:
 - a) Contact Northern Design to secure a patch kit that exactly matches the mix design / stone that was originally provided. These patch kits need to be kept dry.
 - b) Remove any loose or unstable material from that damage area so that patch is able to bond effectively.
 - c) Wet down the area (prior to applying patch mix) on all small to average size chips. On larger chips, it's best to apply C-21 bonding agent instead of water.
 - d) Just add water to desired amount of patch mix, using a separate container. Using the entire amount supplied is not necessary. Saving patch is recommended in case too much water is added. Batch the material to the consistency of a brownie mix. Do not use C21 in the mix itself, as you will not be able to expose sand on the finished patch (C21 can prevent the effects of etching).
 - e) Trowel / sponge / fill the patch on the area of concern; let it set up to harden. The use of a heat gun (from a reasonable distance / range) can accelerate this process.
 - f) Larger chips may need to be formed. Use smooth, small pieces of flat material and secure the form so that the patch can be filled into the space and set up effectively. Once the patch is set up, gently slide the form so the patch can keep its shape. Pulling the mold right off too soon or hastily may pull the patch out with it. We recommend using composite / laminated wood or a piece of smooth insulation, as both break away with relative ease.
 - g) Once the patch is set up, touch up the repaired area using a soft stone or your hand, in order to help blend the patch into the original stone. This process will get the patched area smooth to the surface of the piece.
 - h) Repeat the patching process if necessary. There will be a slight color variation until the patch is completely cured and we highly recommend touching up the repaired area with a little acid in order to pull out the sand and match the surrounding / existing level of finish / aggregate exposure. Immediate results should not be expected, it takes time for the patch to cure and these repairs will blend better with age. Keep in mind, a patch is a fix; the repaired stone will never look perfect. The goal should be to minimize the visual impact -- So someone who was not aware of the damage would have a tough time noticing the blemish after the fact.