

CONCRETE FLOORS

PART I – GENERAL

This specification is to detail the process of stabilizing and void filling under a concrete floor on grade with Hydrophobic Polyurethane Chemical Grout, HPCG.

A. Work Included:

Include all materials, labor, tools, and equipment to perform void filling and stabilizing under concrete floor.

B. Delivery, Storage and Handling:

1. Deliver the specified product in original, unopened containers with the manufacturers name, product labels, product identification, MSDS, and batch numbers.
2. Store and condition the specified product as recommended by the manufacturer.

C. Job Conditions:

Precautions should be taken to avoid damage to any surface near the work zone due to mixing, handling, and/or placement of the specified materials.

D. Safety:

1. All employees and personnel on jobsite that may come in to contact with the HPCG or vapors must familiarize themselves with the MSDS before using the product.
2. Safety showers and eye wash stations should be provided in all work areas.

PART II – PREPARATION

The surfaces of floors, walls, etc. to be treated shall be cleared of all debris and attachments to allow free and clear access to the work, and also open access for monitoring of grout travel.

PART III – APPLICATION

A. Materials:

1. Hydrophobic Polyurethane Chemical Grout shall be Mountain Grout Flexible as manufactured by Green Mountain International, Inc. 235 Pigeon Street, Waynesville, NC 28786, 800-942-5151.
2. HPCG must be shipped as non-hazardous and contain no solvents or VOC's.
3. HPCG must have been tested for potential leachate of heavy metals (soil contamination) under TCLP Extraction method 1311,

Metals Method 6010 and Manual Cold Vapor Technique, Method 7470. Methods supplied by the USEPA office of Solid Waste and Emergency Response.

4. HPCG pump cleaner/flush must be solvent free and non-flammable.

B. Application:

1. All voids under slab shall be filled with HPCG.

a. **Preparation:** Drill 5/8" hole through middle of concrete slab down to void. Drill four additional holes on 3' centers around the first hole. These are relief holes.

b. **Application:** Insert 5/8" injection port in center hole. Pump HPCG through injection port until evidence of grout is observed coming up through relief holes. Place ports into those holes to contain HPCG. Drill more relief holes on three-foot centers and pump HPCG through the newly placed ports. Continue with this method until all voids under slab are filled.

Notes:

1. If grout is not observed coming from relief holes, drill additional hole(s) closer to point of injection.
2. Always be sure there are relief holes near port being injected. Expanding HPCG exerts pressure of approximately 5 psi.

c. **Mixing Procedure:** HPCG shall be mixed by very gradually pouring component "B", accelerator, into component "A" while carefully stirring so as to not entrain air into the mixture.

d. **Placement:** HPCG shall be pumped through a piston pump capable of producing discharge pressures of >250 psi. Pump shall be PowerTwin Jr. as manufactured by Speeflo Corporation or approved equal.

e. Injection ports shall be 5/8" diameter brass and rubber provided by Green Mountain International, Inc. or equal.

2. **Cleaning:** All excess HPCG shall be cleaned from the area and properly disposed. Leave finished work and work area in a neat, clean condition.

(To be used as a general guideline. All projects are unique.)