

CP-100 HMW NS

Non-shrink, Vinyl Ester Resin Brick & Tile Grout

PRODUCT DESCRIPTION

Blome CP-100 HMW NS is a three-component, non-shrink, silica filled vinyl ester grout used for the installation of chemical resistant brick and tile. CP-100 HMW NS is designed for grouting fully vitrified tile and acid brick for floor and trench applications requiring resistance to acids, bleaches, alkalis, solvents and other corrosive chemicals. CP-100 HMW NS is especially suited for use in applications requiring resistance to strong oxidizers such as chlorine, chlorine dioxide, hypochlorite bleaches and oxidizing acids such as nitric and chromic. The material exhibits excellent bond strength to acid brick and tile and is well suited for applications requiring high physical properties.

Blome CP-100 HMW NS Vinyl Ester Brick and Tile Grout is formulated specifically for use in the Food, Beverage, and Pharmaceutical manufacturing areas where strong acid or solvent service is expected. The superior bond characteristics of CP-100 HMW NS provides for a wide range of uses, including vitrified ceramic tiles, red shale acid brick, and quarry tile. CP-100 HMW NS is available in three standard color choices; off-white, gray and black. Other colors may be available by special order.

A *High-Flow* version of CP-100 NS HMW is available for grouting narrow 2.5mm joints, typically found with full vitrified acid resistant tile hexagonal filed tile systems.

TYPICAL USES

Blome CP-100 HMW NS is suitable for grouting chemical and abrasion resistant masonry units in a variety of applications including:

- Clean-in-place (CIP) areas in Food / Beverage Manufacturing
- Vitrified Ceramic and Acid brick flooring
- Vitrified Ceramic and Acid brick lined trenches and sumps

HANDLING CHARACTERISTICS

Blome CP-100 HMW NS is specially designed to have excellent flow and handling characteristics and a rapid cure once grouted into place. This results in a combination of high-quality tile and brickwork, and high production rates. CP-100 HMW NS cures rapidly and provides an excellent bond to vitrified ceramic tiles, acid brick and quarry tile.

TYPICAL PROPERTIES

WET

Components:	Three (3) – powder, resin, activator
Wet mortar density:	111 lbs./ft ³
Mixed consistency:	Pourable Grout
Pot life:	50°F 25-30 minutes 77°F 15-18 minutes
Initial set:	50°F 6 - 8 hours 77°F 1 - 2 hours
Final cure	50°F 9 days minimum 77°F 7 days minimum

CURED

Blome CP-100 HMW NS complies with ASTM C-395	
Absorption (ASTM C-413)	less than 0.4%
Bond Strength to brick (ASTM C-321)	Brick failure
Coefficient of Thermal Expansion (ASTM C-531)	12×10^{-6} in/in/°F
Color	Off white / Gray / Black
Compressive Strength (ASTM C-579)	12,500 psi
Shrinkage	< 0.05%
Temperature limit	Continuous: 225°F in suitable chemical service
Tensile Strength (ASTM C-307)	2,400 psi

PACKAGING & STORAGE

Blome CP-100 HMW NS is supplied as a three-component product, with a Resin, Catalyst (CHP) and Filler Powder. The use ratio of Filler Powder to Resin is 2.67 pbw to 1.0 pbw. CHP Catalyst is supplied at 3 oz/gal resin. Use 2 oz/gal resin at higher application temperatures.

Standard Unit Size 160 lbs.

Powder	120 lbs. (2 x 60 lb. Bags)
VE Cure (CHP)	15 oz (1 x 15 oz. Bottle)
Resin	45 lbs. (1 x 45 lb. Pail)

High-Flow Unit Size 270 lbs.

Powder	180 lbs. (3 x 60 lb. Bags)
VE Cure (CHP)	30 oz (2 x 15 oz. Bottle)
Resin	90 lbs. (2 x 45 lb. Pails)

ESTIMATED COVERAGE

Shelf life for CP-100 HMW NS powder and resin is nine (9) months if stored below 70°F at 50% relative humidity. Keep CP-100 HMW NS Powder and Resin tightly sealed in original containers until ready for use. Store in a cool, dry place, out of direct sunlight, and on pallets at temperatures between 50°F – 80°F. Protect bags of CP-100 HMW NS Powder from water and weather during storage and on the job site.

BID SPECIFICATION GUIDE

JOB SITE ENVIRONMENTAL CONDITIONS

Please refer to the Blome Brick Mortar Usage Chart in the Chemical Proofing Section of the Blome International Catalog. This chart gives estimated coverage rates and does not allow for waste, joint variations or other job site contingencies.

Use Blome CP-100 HMW NS Vinyl Ester Resin Tile Grout as manufactured by Blome International, O'Fallon, MO.

SURFACE PREPARATION

Blome CP-100 HMW NS must be applied while ambient temperatures are between 50°F and 90°F. Blome CP-100 HMW NS components, tile, brick and substrate temperatures must also be maintained in this range. Blome Vinyl Ester Low Temperature Accelerator is available for use when temperatures drop below 50°F. Consult Blome for application and use details. CP-100 HMW NS installations should be protected from water and weather during installation and curing.

Tile and brick to be installed with Blome CP-100 HMW NS must be clean, dry and oil free. Field waxed tiles shall be free of wax on the sides to ensure good bond to vertical surfaces. If tile or brick has been frozen, they must be thawed completely and allowed to dry prior to installation with Blome CP-100 HMW NS. All surfaces should be swept clean, side joints vacuumed, and be free of dirt, dust, water or other jobsite contaminants.

SAFETY PRECAUTIONS

Blome CP-100 HMW NS Powder, Resin and mixes of them present various health hazards if handled improperly. CP-100 HMW NS Powder contains silica and peroxide powders and CP-100 HMW NS Resin is flammable and will cause eye injury and irritate skin. Wear a respirator suitable for silica and peroxide powders, safety glasses with side shields, gloves and long sleeve shirts to prevent all contact with skin and eyes. After working with Blome CP-100 HMW NS, wash thoroughly before eating, drinking, smoking or other activities.

APPLICATION EQUIPMENT

Blome CP-100 HMW NS is best mixed with a KOL, pail type mixer or in a pail using a drill motor driven paddle blade. This mixing equipment must be clean, dry and free of any contaminants, including Portland Cement, other grouts, resins, etc. When mixed, CP-100 HMW NS is grouted into place using a "Groutmaster" type rubber float or a steel finishing trowel.

MIXING AND APPLICATION

Mix 3 oz CHP Catalyst per gallon of Resin for 1-2 minutes (use 2 oz/gal resin at higher application temperatures). For the *standard mix*, add approximately 2.67 parts by weight VERSI-CHEM VE Grout Filler Powder to 1.0 part by weight preblended CP-100 HMW NS Resin/catalyst and mix to a uniform grout consistency. For the *high-flow mix*, add approximately 2.0 parts by weight VERSI-CHEM VE Grout Filler Powder to 1.0 part by weight preblended CP-100 HMW NS Resin/catalyst and mix to a uniform grout consistency. Mix components using a clean, dry mechanical mixer or a trowel for 1-2 minutes, ensuring there are no lumps or dry pockets of powder. The amount of powder may be adjusted, up or down, to achieve desired consistency for specific uses. More powder will produce a thicker consistency for some vertical applications such as cove base.

Pour mixed grout onto the area to be grouted. Spread grout into open joints of tile or brickwork, starting at the lowest areas, ensuring the joints are completely full, then working to the highest areas. Using a "Groutmaster" type rubber float or a steel finishing trowel, work grout into joints and strike excess grout from brick faces in a squeegee fashion, taking care not to draw surface wax into the joint spaces. Be certain to pass over joints on a 45° angle, so as not to disturb grout that has already flowed into joints.

In some instances, a second grout pass will be required to fill low spots and achieve even, full grout joints. This second grout pass should be applied within 24 hours of the first grout pass to ensure proper adhesion between passes. Allow grout in completed tile or brickwork to cure for

three (3) days minimum prior to high-pressure steam removal of wax from brick or tile faces. All tools, mixing equipment, gloves and application equipment should be cleaned up immediately using a citrus or biodegradable cleanser, with hot water, while material is still wet. If material begins to cure, solvent-based cleaners will be required for removal.

CLEANUP

All tools, mixing equipment, gloves and application equipment should be cleaned up immediately using a citrus or biodegradable cleanser, with hot water, while material is still wet. If material begins to cure, solvent-based cleaners will be required for removal.

WARRANTY

We warrant that our goods will conform to the description contained in the order and that we have good title to all goods sold. Our material data sheets and other literature are to be considered accurate and reliable, but are used as guides only.

WE GIVE NO WARRANTY OR GUARANTEE, WHETHER OF MERCHANTABILITY OR FITNESS FOR PURPOSE OR OTHERWISE, AND WE ASSUME NO LIABILITY IN CONNECTION THEREWITH. We are happy to provide suggestions for applications; however, the user assumes all risks and liabilities in connection therewith, regardless of any suggestions we may provide. We assume no liability for consequential or incidental damages. Our liability, in law and equity, shall be expressly limited to the replacement of non-conforming goods at our factory, or at our sole option, to repayment of the purchase price of the non-conforming goods.

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Supersedes all previous literature