PES 574 GROUT

PES 574 is a high performance mortar designed for use as a heavy duty repair system for concrete and mineral surfaces.

PES 574 is based on a blend of solvent free epoxy resins and polyamino amine adducts reinforced with a special blend of silica quartz minerals and inorganic fillers which have been specially selected to provide optimum application and performance properties together with a high level of adhesion, abrasion, impact and chemical resistance.

PES 574 is a unique repair system, easy to apply by trowel or float with no shrinkage or volume change during cure and is ideal for the repair of damaged concrete, sills, lintels, steps, ramps, walkways, and loading bays.

Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.

SURFACE PREPARATION

Surfaces to be repaired with PES 574 must be clean, dry, and free from contamination.

Oily or greasy concrete surfaces must be thoroughly cleaned with steam, detergent solution, and then washed with clean water and allowed to dry.

New concrete surfaces will generally have laitance on the surface and this must be removed by mechanical means. All existing coatings must be removed from the surface before any repair is carried out. Failure to do this will mean the PES574 bond is only as good as the existing coating.

Thorough cleaning and roughening of any surface to which PES 574 is being applied is absolutely essential for successful repair.

Abrasion of surfaces will cause dusting and therefore all loose dust should be vacuumed clear before the application commences.

PRIMING

To obtain maximum penetration and adhesion, the repair area should always be primed with PES 504 Primer. PES 504 Primer consists of a base component and an activator component. The contents of the activator component should be added to the base unit. Mix thoroughly to produce a uniform material. If only small quantities are required then the PES 504 Primer can be mixed in the ratio 2 parts base to 1 part activator.

The mixed primer should be applied immediately using a stiff bristle brush, working the material into the prepared surface to obtain maximum penetration. PES 504 Primer will generally apply at coverage rate of 4ft² ($0.37m^2$) per 100 Grams of Primer.

PES 504 Primer must be used as a tack coat and should not be allowed to dry – any areas of primer which have been allowed to dry should reprimed for optimum results.

MIXING

PES 574 is a three component material comprising a base component, activator component and aggregate.

The aggregate component should be removed from the plastic container. The base and activator components should be emptied into this container and mixed thoroughly to produce a uniform material.

The PES 574 aggregate should immediately be added to the base and activator mix until the desired consistency is achieved. For bonding and grouting applications approximately two thirds of the aggregate should be added.

For resurfacing and general repairs, all the aggregate should be added. The complete material should be mixed thoroughly for 2-3 minutes to produce a uniform material. Prolonged hand mixing or mixing by mechanical mixer will produce a wetter mix.

If only small quantities are required the PES 574 base and activator can be mixed in the ratio of 2 parts base to 1 part activator, with the appropriate quantity of aggregate (up to 30 parts).

The mixed material should be used within 70 minutes of mixing at 68°F (20°C). This time will be reduced at higher temperatures and extended at lower temperatures.

APPLICATION

The mixed PES 574 should be applied to the primed area by float or trowel. The material should be spread firmly and evenly onto the surface and then smoothed over with a steel trowel or float. Occasionally cleaning the trowel with M.E.K. damp rag will aid in removing resins that can build up and create friction pulling at the finished application.

On horizontal surfaces PES 574 can be applied to virtually any thickness. On vertical surfaces, the maximum thickness which can be achieved without sagging is 0.5”

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(12.5mm). When applied at 0.25" (6 mm) PES 574 will provide a coverage rate of 4 ft² (0.37 m^2) per 5 kg unit.

PES 574 cannot be readily applied to overhead surfaces without the use of shuttering. Where applications to overhead surfaces are being considered, customers should consult the PES Technical Service Department.

NOTE: The minimum temperature of application is 50°F (5°C).

On certain repairs there may be adjacent areas where PES 574 is not required to bond. By applying Release Agent to these surfaces before the PES 574 is applied, then, a simple release can be achieved after curing.

All equipment must be cleaned IMMEDIATELY after use with MEK.

VOLUME CAPACITY

29 cu ins. (450 cc) per kilo.

Detailed working recommendations are available from the PES office.

PHYSICAL CONSTANTS

Mixing Ratio: Mix as supplied

Appearance: Primer Base - Clear Pale Straw Liquid
Primer – Clear Amber Liquid
Activator – Clear Amber Liquid
Base – Clear Pale Straw Liquid
Aggregate – Colored Granular Powder

Drying & Cure Times at 68°F (20°C)

PES 504 Primer	
Usable Life	30 minutes
Maximum Overcoating	3 ½ hours
PES 574	
Usable Life	70 minutes
Foot Traffic	8 hours
Full Hardness	24 hours
Maximum Overcoating	24 hours
Full Core	7 days

Volume Solids: 100%

V.O.C. Nil

Shelf Life: Use within 5 years of purchase. Store in a sealed container at temperatures between 40°F (5°C) and 86°F (40°C).

PHYSICAL PROPERTIES

Abrasion Resistance 145 mgm. weight loss per 1000
ASTM D4060 cycles – 1 kg load – CS17Wheel
Impact Resistance 16 in lbs. (1.8 Joules)
ASTM D256
Direct Pull Adhesion 500 psi (35 kg/cm²) - concrete
ASTM D4541 (Concrete Failure)
Compressive Strength 12500 psi (880 kg/cm²)
ASTM D695
Flexural Strength 7000psi (490 kg/cm²)
ASTM D790
Shrinkage Nil
ASTM C246

HEALTH AND SAFETY

As long as normal good practice is observed PES 574 can be safely used.

Protective gloves should be worn.

A fully detailed Material Safety Data Sheet is either included with the material or is available on request.

PACKAGING

Supplied in 5 kg and 15 kg packs.

The information provided in this Product Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product or this information because this is outside the control of the company. Users should determine the suitability of the product for their own particular purposes by their own tests.

Polymeric Engineered Solutions
5401 Hwy 21 W
Bryan, TX 77803
979-779-8700
979-779-8400
www.pes-solutions.com
pes1@pes-solutions.com