Sika® MonoTop® -615 HB
High Build Polymer Modified Repair Mortar

Description
Sika MonoTop 615 HB is a cementitious, polymer modified, one component, repair mortar containing reactive microsilica. Sika MonoTop 615 HB is part of Monotop system for concrete repair and protection.

Uses
- The lightweight nature of MonoTop 615 HB enables very thick layers to be applied in vertical and overhead applications.
- It is ideal for use in repairing damaged and spalled concrete caused by reinforcement corrosion.
- Sika MonoTop 615 HB can be used for most types of general concrete repair and refurbishment work.

Advantages
- Excellent high build and workability characteristics
- Enables rapid repair work to be undertaken.
- One component-just add water and mix.
- Layer thickness up to 80 mm are possible in vertical application.
- Microsilica and polymer modified.
- Good resistance to water and chloride ion penetration.
- Improve sulphate resistance

Instruction for Use

Surface Preparation
- The concrete substrate must be sound clean and free from oils, grease or surface contaminants. All loose materials and surface laitance must be removed by high pressure water jet blasting or by other mechanical means. Small areas and spot repairs should be mechanically prepared by needle gunning, bush hammering or similar.
- The prepared substrate should be dampened with clean water (SSD). Sika MonoTop 615 HB should be applied over a bonding coat slurry of Sikatop 121 or Sika Armatec 110 Epocem (refer to each data sheets).
- All feathered edges around the area to be repaired should be squared off with an angle grinder and chiselled down to a minimum depth of 10 mm

Mixing
- Pour 3.5 litres of clean water into a suitable mixing container and slowly add all the powder while mixing continuously with a mixing paddle attached to a low speed electric drill (max 500 rpm, with power approx. 1000 watt).
- Thoroughly mix until a smooth, lump free consistency is achieved. A minimum mixing time of 3 minutes is recommended.
- The water can be adjusted ± 10% to suit the consistency desired
Application

■ While bonding coat of Sikatop 121 is still tacky, pack the mortar well into the cavity of repair. Use a placing rather than a rendering technique to fill all voids and ensure thorough compaction is achieved.

■ Force the Sika MonoTop 615 HB against the edge of the repair and progressively work towards the center.

■ For repair in excess of 80 mm thick, apply in layers ensuring that each previous layer is sufficiently hardened and well keyed. If previous layers are over 48 hours old, scabble the surface and dampen. Sika Top 121 may be use as a bonding slurry between layers

■ Steel trowel the final layer if required to achieve a smooth, tight finish.

Curing

As with all cementitious based mortar, Sika MonoTop 615 HB must be protected against direct sunlight and wind while hardening. Cover all exposed mortar with wet hessian, plastic sheeting or use Sika curing compound

Technical Data

Form: Cement based Powder

Colour: Grey

Wet Density: Approx 1.8 kg/ litre of freshly mixed mortar

Mix Ratio: Water : Powder = 1 : 7.3 – 8.1 parts by weight (i.e. approx 3.25 litre water per bag 25 kg)

Material consumption: For 1 litre of fresh mortar: approx. 1.60 kg powder is required

Material consumption depends on concrete surface and application method.

Compressive Strength (28 days) ASTM C109: Approx 410 kg/cm²

Flexural Strength (28 days) ASTM C348: Approx 60 kg/cm²

Bond Strength: >15 kg/cm² (concrete failure, using Sikatop 121 as a bonding slurry)

Pot Life (30°C): Approx 60 minutes

Application Temperature: Minimum 5°C / Maximum 30°C

Application Thickness per Layer: Minimum 5 mm / Maximum 80 mm (Max 30 mm for overhead application up to 50-mm thick on small area application)

Water Consumption: 14% by weight of Sika MonoTop 615 HB (3.5 liters water per 25 kg bag)

Storage: Store in dry, cool and shaded place

Shelf Life: 9 months from date of production if stored properly in unopened original packing

Packaging: 20 kg bag

Handling Precautions

■ Avoid contact with skin and eyes

■ Wear protective gloves and eye protection during work

■ If skin contact occurs, wash skin thoroughly

If in eyes, hold eyes open, flood with warm water and seek medical attention without delay.

Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika’s current knowledge and experience of the product when properly stored, handled and applied under normal conditions in accordance with Sika’s recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product’s suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.