



HOW-TO GUIDE

SikaQuick® Pro 1000

HORIZONTAL, RAPID REPAIR MORTAR • GENERAL & STRUCTURAL CONCRETE REPAIR

MATERIALS:

- Safety glasses & gloves
- Dust mask
- 5-gallon mixing pail
- 50 lb. bag SikaQuick® Pro 1000
- Low speed drill (400-600 rpm) & die-cast mixing paddle
- Measuring bucket
- Flat trowel
- Finishing trowel or broom
- Polyurethane (plastic) sheeting
- Wire brush, chisel & hammer
- Water pump sprayer
- 4.5 pints water or SikaLatex® R

SITE PREP & PROCEDURE

1. Concrete must be clean and sound. Remove all deteriorated/loose concrete, dirt, oil, grease, and other bond-inhibiting materials from the area to be repaired. Ensure the repair area is at least ¼" deep. Chip away any loose or friable concrete using a hammer and chisel. Prep the surface to be repaired using a high pressure water blast, scabber, or other appropriate mechanical means to obtain an exposed aggregate surface profile of ± 1/8" (minimum CSP-6). Rust, scale, mortar, concrete, dust and other loose and deleterious material which reduces bond or contributes to corrosion shall be removed from steel reinforcement. Surfaces shall be prepared using abrasive blast cleaning techniques or high pressure water blasting to achieve a bright metal finish. Dampen the surface so that it is Saturated Surface Dry (SSD) with clean water prior to application. Make sure no standing water remains during application.
2. Priming: For concrete substrates, prime the prepared substrate with a scrub coat of SikaQuick® Pro 1000 prior to placement of the mortar. The repair mortar has to be applied into the wet scrub coat before it dries. Steel reinforcement should be thoroughly prepared by mechanical cleaning to remove all traces of rust. Where corrosion has occurred due to the presence of chlorides, the steel should be high pressure washed with clean water after mechanical cleaning. For priming of reinforcing steel use Sika® Armatec® corrosion protection products (consult current Product Data Sheets).
3. Mixing: Wet down all tools and mixer to be used. Pour the required amount of clean, potable water into a suitably sized and clean mixing container, using a calibrated measuring jug or similar, to ensure strict control of the water content. Do not over-water. Add 1 bag while continuing to mix with a low-speed drill (400 - 600 rpm) and mortar mixing paddle, or in an appropriate mortar mixer. Once all the powder has been added, mix to a uniform consistency, maximum 3 minutes, until a lump-free blend is achieved. Thorough mixing and proper proportioning of the powder and liquid is necessary. To help

control setting times, colder water may be used in hot weather and warmer water may be used in cold weather. Inaccurate proportioning of the powder to liquid will result in a finished product that may not conform to the typical published performance property values.

6. With water or undiluted SikaLatex® R: Pour 4.5 pints (2.1 L) of liquid into the mixing container. Slowly add powder, mix and adjust as above. Add up to another 1/2 pint (0.24 L) maximum of liquid to achieve desired consistency. Do not over-water. With diluted SikaLatex® R: SikaLatex® R admixture may be diluted up to 5:1 (water: SikaLatex® R) for projects requiring minimal polymer modification. Pour 4.5 pints (2.1 L) of the mixture into the mixing container. Slowly add powder, mix and adjust as above.
7. Extension with Aggregates: For application greater than 1" (25 mm) in depth, add 3/8" (10 mm) coarse aggregate. The typical addition rate is 25 lbs (11.4 kg) of aggregate per bag. It is approximately 2 gallons (7.6 L) by loose volume of aggregate. The aggregate must be non-reactive (reference ASTM C 1260, C 227 and C 289), clean, well graded, Saturated Surface Dry (SSD), have low absorption and high density, and comply with ASTM C 33 size number 8 per Table 2. Variances in aggregate may result in different strengths. Do not use limestone aggregate. Do not exceed a slump of 7" (178 mm). This may cause excessive bleeding and retardation and may reduce the strength and performance of the material.
8. A neat mix of SikaQuick® Pro 1000 mortar must be scrubbed into the mechanically prepared, SSD substrate. Be sure to fill all pores and voids. Force material against edge of repair, working toward center. After filling repair, screed off excess. Allow material to set to desired stiffness, then finish with wood or sponge float for a smooth finish, or broom or burlap-drag for a rough finish.
9. If a smoother finish is desired, a magnesium float should be used. Mixing, placing, and finishing should not exceed 30 minutes maximum. Refer to ACI 305, the "Guide to Hot Weather Concreting" or ACI 306, the "Guide to Cold Weather Concreting" when there is a need to place this product while either hot or cold temperatures prevail. Thinner placements will be more sensitive to the temperature conditions.
10. Curing Treatment: Proper curing is critical for sound results. Curing means maintaining proper moisture. Covering the material with polyethylene (plastic) sheeting is a sufficient way to help retain moisture. Place plastic as soon as the material has set (lost its sheen). If surface begins to appear dry remove the plastic and sufficiently moisten surface and replace the plastic. Protect freshly applied mortar from direct sunlight, wind, rain and frost. To prevent from freezing, cover with insulating material (e.g. curing blanket).

