BUILDING TRUST

PRODUCT DATA SHEET

SikaQuick® Pro 1000

Horizontal, rapid repair mortar

PRODUCT DESCRIPTION

SikaQuick® Pro 1000 is an easy mix & apply, one-component, repair mortar for concrete. This cementitious patching mortar has been formulated with rapid hardening and early strength gaining properties, with an extended working time to ease the risk of material setting in the pail.

USES

- General & Structural Concrete Repair on:
  - Steps / Patios / Driveways / Sidewalks / Walkways
- Large crack repair in masonry & concrete
- Basement floors
- Garage floors
- Concrete slabs

CHARACTERISTICS / ADVANTAGES

- Open to foot traffic in 4 hrs
- Open to vehicle traffic in 6 hrs
- Easy to mix & appply
- High strength - 5,000 psi
- Freeze / thaw resistant
- Can be applied from 1/4" up to 2" per layer
- Extended working time - great for warmer weather applications
- Epoxy coatings can be applied as early as 6 hrs
- Mix with SikaLatex® R for increased adhesion strength
- On grade / above / below grade applications

APPROVALS / STANDARDS

- Rapid Hardening as defined by ASTM C 928

PRODUCT INFORMATION

Chemical Base	Blend of cement, select aggregates and specialty additives
Packaging	50 lb bag
Appearance / Color	Gray powder
Shelf Life	12 months from date of manufacture if stored properly in original, unopened and undamaged, sealed packaging
Storage Conditions	Store dry at 40°F – 95°F (4°C – 35°C) Protect from moisture. If damp, discard material

TECHNICAL INFORMATION

Abrasion Resistance	28 days	0.026 inch (0.66 mm) on wear at 1 hour	(ASTM C 779) 73°F (23°C), 50% R.H.

Compressive Strength	3 hours 1 day 7 days 28 days	1,250 psi (8.6 MPa) 4,000 psi (27.5 MPa) 5,000 psi (34.5 MPa) 7,000 psi (48.3 MPa)	(ASTM C 109) 73°F (23°C), 50% R.H.
Modulus of Elasticity in Compression	28 days	4.6 x 10^6 psi (32 GPa)	(ASTM C 469) 73°F (23°C), 50% R.H.
Flexural Strength	1 day 7 days 28 days	700 psi (4.8 MPa) 900 psi (6.2 MPa) 1,000 psi (6.9 MPa)	(ASTM C 293) 73°F (23°C), 50% R.H.
Shrinkage	28 days	0.06%	(ASTM C 157 modified per ASTM C-928) 73°F (23°C), 50% R.H.
Tensile Adhesion Strength	28 days	≈ 300 psi (2.1 MPa) Substrate failure	(ACI 503R) 73°F (23°C), 50% R.H.
Freeze Thaw De-Icing Salt Resistance	50 Cycles	0.080 lb / ft^2 (391 grams / m^2)	(ASTM C 672)
Freeze-Thaw Stability	28 days	98%	(ASTM C 666)
Rapid Chloride Permeability	28 days	< 1,000 Coulombs	(ASTM C 1202 / AASHTO T 277) 73°F (23°C), 50% R.H.

APPLICATION INFORMATION

Mixing Ratio	4.5 – 5 pints (2.1 – 2.4 L)	
Coverage	**Neat**	0.43 ft^3
	Extended (with 25lbs of 3/8" pea gravel)	0.58 ft^3
	Yield figures do not include allowance for surface profile, porosity, or material wastage	

Layer Thickness

	Min.	Max.
Neat	¼ inch	2 inches
Extended	1 inch	6 inches

- Do not feather edge
- Do not exceed 7 inches slump when extended

Product Temperature	65°F - 75°F (18°C - 24°C)
Ambient Air Temperature	> 40°F - 95°F (4°C - 35°C)
Substrate Temperature	> 40°F - 95°F (4°C - 35°C)
Thinner	35 - 85 minutes (ASTM C 266) 73° F (23° C), 50% R.H.
Final set time	> 120 minutes (ASTM C 266) 73° F (23° C), 50% R.H.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

- Avoid application in direct sunlight, during precipitation and/or when strong winds prevail.
- Use only clean, potable water.
- As with all cement based materials, avoid contact with aluminum to prevent adverse chemical reaction and possible product failure. Insulate potential areas of contact by coating aluminum bars, rails, posts etc. with an appropriate epoxy such as Sikadur®-32 Hi-Mod.
- Bonding agents (e.g. Sika® Armatec® 110 EpoCem) should not be used. Use of the neat mortar as a scrub coat is recommended and preferred. If bonding agents are used, follow cure times for the bonding agents used as a guide prior to putting SikaQuick® Pro 1000 in service. Assure suitability with the manufacturer of the bonding agent.
- SikaQuick® Pro 1000 does not form a vapor barrier when cured.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

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.
2. Ensure the repair area is at least ¼" deep.
3. Chip away any loose or friable concrete using a hammer and chisel.
4. Prep the surface to be repaired using a high pressure water blast, scabbler, or other appropriate mechanical means to obtain an exposed aggregate surface profile of ± 1/8" (minimum CSP-6).
    1. 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 acheive a bright metal finish.
5. Dampen the surface so that it is Saturated Surface Dry (SSD) with clean water prior to applciation. Make sure no standing water remains during application.

PRIMING

- Concrete substrate: 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.

- Reinforcing steel: 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).

MIXING

1. Wet down all tools and mixer to be used.
2. 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**.
3. 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.
4. 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.

- **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.

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.

APPLICATION

- 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.
- 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.

CURING TREATMENT

Proper curing is critical for sound results. Curing means maintaining proper moisture.

1. 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).
2. If surface begins to appear dry remove the plastic and sifficiently moisten surface and replace the plastic.
3. Protect freshly applied mortar from direct sunlight, wind, rain and frost.
4. To prevent from freezing, cover with insulating material (e.g. curing blanket).

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates (“SIKA”), the user must always read and follow the warnings and instructions on the product’s most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA’s Technical Service Department at 800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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