



RESTORA-TOP 100

030100 MAINTENANCE OF CONCRETE

Concrete Restoration

Description

XYPEX RESTORA-TOP 100 is one of three Xypex products specifically formulated for the repair and rehabilitation of cast-in-place or precast concrete surfaces. Xypex Restora-Top 100 is used for patches up to 1 in. (25 mm) thick where rapid setting and strength gain are required. Restora-Top 100 consists of specially modified Portland cement, aggregates, polypropylene fibers, and admixtures combined in controlled proportions. This compound provides excellent adhesion properties, rapid setting and strength gain as well as superior durability and reduced shrinkage.

Recommended for:

- Concrete Floors
- Parking Decks
- Walkways
- Warehouse Floors
- Bridge Decks
- Roads

Advantages

- Excellent adhesion to existing concrete surfaces
- Traffic-ready in two to four hours
- Easy to use – just add water and mix
- Rapid set and strength gain
- Suitable for indoor and outdoor use
- VOC compliant

Limitations

Restora-Top 100 should not be mixed and placed at temperatures below 37°F (3°C) or above 86°F (30°C). Protection from direct sunlight is desirable under hot or windy conditions. Use only as a patching or filling material.

Packaging

Xypex Restora-Top 100 is available in 55 lb. (25 kg) pails.

Storage

Xypex products must be stored dry at a minimum temperature of 45°F (7°C).

Coverage

At 1 in. (25 mm) thickness, each 55 lb. (25 kg) pail of Restora-Top 100 will cover approximately 5.7 sq. ft. (0.52 m²) or yield approximately 0.43 ft³ (12.1 litres) of repair materials.

Physical Properties

| Setting Time, ASTM C 403 | | |
|--|------------|----------|
| Initial, at 68°F (20°C) | 25 minutes | |
| Final, at 68°F (20°C) | 45 minutes | |
| Working Time at 68°F (20°C) | | |
| | 20 minutes | |
| Air Content (% of Volume) | | |
| | 5% | |
| Compressive Strength | | |
| @ 1 hr. after initial set | 2150 psi | 14.8 MPa |
| @ 3 hrs. after mixing | 3000 psi | 20.7 MPa |
| @ 6 hrs. | 3450 psi | 23.8 MPa |
| @ 24 hrs. | 5000 psi | 34.5 MPa |
| @ 28 days | 7500 psi | 51.7 MPa |
| Scaling Resistance in Presence of De-Icing Salt, ASTM C672 After 50 Cycles of Freezing and Thawing | | |
| No Scaling (Rating O) | | |

NOTE:

i. The typical properties noted above are based on mixing the Restora-Top 100 with sufficient water to provide a slump of 3.5 to 4 in. (90 - 100 mm). These properties are based on mixing and curing the product at 70°F (21°C).

ii. Compressive strength determined on 2 in. (50 mm) cube specimens, moist cured at 73° ± 3°F (23° ± 2°C) after 24 hours.

Application Procedures

1. Remove loose or unsound concrete by chipping, saw cutting, or other mechanical means. It is preferable to have a minimum repair thickness of 1/2 in. (12 mm) with square cut edges. Feather edging is not recommended.
2. Remove dust and foreign material from the repair area.
3. Saturate the repair area with water. Just as the concrete surface becomes dry, place the Restora-Top 100 material.

4. Add approximately 3/4 of the required water to the mixing container (0.39 U.S. gallons/1.5 litres of water is usually sufficient at this stage for each 55 lb./25 kg pail of product). While mixing, gradually add the Restora-Top 100 powder to the water. Add more water as required to obtain the desired consistency. Do not exceed 0.86 U.S. gallons (3.3 litres) of water per 55 lb. (25 kg) pail of Restora-Top 100.

5. Mix until thoroughly blended and until required consistency has been obtained. Normally a 2 minute mixing time is adequate. If the Restora-Top begins to harden or set, discard the mix. Do not add more water to the mixing container.

6. Place the mixed material as rapidly as possible and work the mix well into the prepared concrete surface to ensure freedom from voids and to obtain proper bonding.

7. Complete finishing operations as quickly as possible and be sure to clean the mixing container between batches. Partially set material in the mixer can accelerate the setting of subsequent batches.

NOTE: During cold weather the use of hot water, and storage of Restora-Top 100 in a warm, dry place before use will prevent excessively long setting times.

Curing

1. After final set, moist curing of Restora-Top 100 for 24 hours is recommended.

2. In hot, dry or windy weather conditions, apply curing compound to the repaired area as soon as the Restora-Top material has set.

3. Protect from freezing for the first 24 hours, and protect from temperatures below 27°F (-3°C) for 72 hours.

Technical Services

For more instructions, alternative application methods, or information concerning the compatibility of the Xypex treatment with other products or technologies, contact the Technical Services Department of Xypex Chemical Corporation or your local Xypex Technical Services Representative.

Safe Handling Information

Xypex is alkaline. As a cementitious powder or mixture, Xypex may cause significant skin and eye irritation. Directions for treating these problems are clearly detailed on all Xypex pails and packaging. The Manufacturer also maintains comprehensive and up-to-date Safety Data Sheets on all its products. Each sheet contains health and safety information for the protection of workers and customers. The Manufacturer recommends you contact Xypex Chemical Corporation or your local Xypex Technical Services Representative to obtain copies of Safety Data Sheets prior to product storage or use.

Warranty

The Manufacturer warrants that the products manufactured by it shall be free from material defects and will be consistent with its normal high quality. Should any of the products be proven defective, the liability to the Manufacturer shall be limited to replacement of the product ex factory. The Manufacturer makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties expressed or implied. The user shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith.

