



MEGAMIX I

PATCHING & RESURFACING

Concrete Rehabilitation

Description

XYPEX MEGAMIX I is a two-component thin parge coat for the waterproofing and resurfacing of vertical masonry or concrete surfaces, as a cap coat for Xypex Concentrate, for rapid return to service applications. Megamix I powder (Part A) is a unique blend of Portland cement, sand, fibers and proprietary chemicals. It is mixed with Xycrylic (Part B) to produce enhanced bond to act as a barrier. Megamix I is applied by brush, trowel or spray up to a thickness of 3/8 in. (10 mm). The high-performance characteristics of Megamix I are enhanced by Xypex's unique crystalline waterproofing and protection technology.

NOTE: For patching or resurfacing deteriorated concrete, requiring a thicker parge coat, (between 3/8" to 2" or 10 to 50 mm), refer to the product data sheet for Xypex Megamix II.

Recommended for:

- Waterproof coating for vertical concrete block surfaces and cast-in-place concrete walls
- A secondary or cap coat for Xypex Concentrate applications to porous masonry surfaces
- Lining for swimming pools, tunnels and tanks

Advantages

- Excellent adhesion and bond to concrete substrates
- Easy to apply
- Fiber reinforced
- Reduces surface absorption
- Provides good surface for painting or as a final finished surface
- Used as a cap-coat over Xypex Concentrate for rapid return to service applications
- Non-toxic, no VOCs
- NSF 61 certified

Packaging

Megamix I is available in 50 lb. (22.7 kg) pails.

Storage

Xypex products must be stored dry at a minimum temperature of 44.6°F (7°C). Shelf life is two years.

Coverage

Required coating thickness will vary depending on project requirements. At the recommended thickness of 1/8 in.

(3.2 mm), one 50 lb. (22.7 kg) pail of Megamix I will cover 40 sq. ft. (3.68 m²). Megamix I may be applied as thin as 1/16 in. (1.6 mm) provided it is used as a cap coat over a coat of Xypex Concentrate. For application thickness exceeding 3/8 in. (10 mm), consult with the Technical Services Department of Xypex Chemical Corporation or your Local Xypex Representative.

Laboratory Test Data

Physical Property	Test Method	Laboratory Test Results
Compressive Strength	ASTM C109	MPa
@ 7 days		16.7
@ 28 days		24.9
Tensile Bond Pull-Off	ACI 503R Appendix A	MPa
Concrete Block		1.54
24 hr Concentrate		1.24
Water Permeability/Absorption	CSN 73 2578	87% reduction
Note: Sample prepared with 5.4 litre Xycrylic Admix per a 27.2 kg pail of Megamix I. For bond and absorption, mixture was applied at 1.6 mm thick onto pressure washed surface. Results may vary significantly based on environmental, project and other conditions.		

Application Procedures

1. SURFACE PREPARATION Remove loose, delaminated or unsound concrete by high pressure water blast, grit blast or other means. The concrete surface to be treated with Megamix I must be clean and free from dirt, oil, paint, or other foreign substances that could hinder bond. Structural repairs (i.e. cracks, faulty construction joints, rock pockets, tie holes, spalled concrete, etc.) should be performed prior to the application of the Megamix I coating. A roughened, open capillary surface texture such as ICRI CSP 3 - 5 is typically required to achieve adequate bond.

2. WETTING CONCRETE SURFACE The concrete or masonry surface must be thoroughly saturated with clean water to control substrate suction. Maintain surface in saturated, surface dry (SSD) condition during application to prevent the premature drying out of the Megamix I coating.

3. MIXING PROCEDURES Mix 1.16 - 1.25 U.S. gallons (4.4 - 4.7 litres) of Xycrylic (Part B) with one 50 lb. (22.7 kg) pail of Megamix I powder (Part A). Mix thoroughly to a creamy consistency. Let mixture stand for 3 - 5 minutes,

re-agitate and then apply. Do not mix more material than can be applied in 15 minutes. As the mixture thickens, stir briefly to ensure the mixture remains fluid, but do not add additional liquid. Select equipment appropriately for the pumping of Megamix I, as it is polymer-modified which increases the rheology and viscosity.

4. APPLYING MEGAMIX I Ensure surface is saturated, surface dry (SSD) just prior to application. Apply Megamix I at a rate of 0.6 to 1.3 lb./sq. ft. (2.9 to 6.4 kg/m²) to produce a coating thickness of between 1/16 in. and 1/8 in. (1.6 mm to 3.2 mm) depending on the porosity of the substrate. For spray application contact the Technical Services Department of Xypex Chemical Corporation or your Local Xypex Representative for specific details.

For applications such as concrete block walls where Xypex Concentrate is to be used as the initial coat in a two-coat system, the Concentrate coating should be installed as per the manufacturer's standard instructions. The recommended application thickness for a cap-coat is 1/8 in. (3.2 mm). Megamix I should be applied over the Concentrate coating after the Concentrate has set and hardened for 12 - 24 hours. During this time, moist cure the Xypex Concentrate coating per the Xypex product data sheet instructions. Maintain the Concentrate coating in a SSD condition during the installation of the Megamix I as a cap-coat. The Megamix I coating should not be applied later than 48 hours after the application of Xypex Concentrate.

NOTE:

- i. Setting time can vary under differing ambient and concrete surface temperatures during application.
- ii. Megamix I should not be mixed and placed at temperatures below 37.4°F (3°C) and rising or above 86°F (30°C) and dropping. Contact the Technical Department of Xypex Chemical Corporation or your Local Xypex Representative for technical support in such situations.
- iii. Prior to the installation, it is recommended that a test section be completed under anticipated ambient and project conditions to demonstrate acceptable bond.

5. CURING When used with Xycrylic as specified above, Megamix I should not require any further curing. However, if weather conditions result in rapid evaporation (such as very hot or windy), then after the Megamix I coating has fully set a fine mist of water should be sprayed on the coating 2 - 3 times for one day.

NOTE: In potable water applications, maintain Megamix I coating at a minimum of 59°F (15°C) for at least 48 hours by appropriate heating and hoarding measures.

Technical Services

For more instructions, alternative application / curing 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 Representative.

Certification

Xypex Megamix I satisfies the requirements of EN 1504-3; Initial Type Testing (ITT) according to EN 1504-3 was certified by BSI as the Notifying Body.

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 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 the particular purpose and the 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.

