



MEGAMIX I

PATCHING & RESURFACING

Concrete Rehabilitation

Description

XYPEX MEGAMIX I is a thin parge coat for the waterproofing and resurfacing of vertical or masonry or concrete surfaces, as a cap coat for Xypex Concentrate, or as an architectural rendering. Megamix I is a unique blend of Portland cement, treated silica sand, fibres and proprietary chemicals. It is mixed with Xycrylic Admix to produce enhanced bond. Megamix I is applied by brush, trowel or spray up to a thickness of 10 mm. The high performance characteristic of Megamix I are enhanced by Xypex's unique crystalline waterproofing and protection technology.

NOTE: For patching or resurfacing deteriorated concrete, requiring a thicker application (between 10 mm 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
- Fibre 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
- Approved for use with potable water

Packaging

Megamix I is packaged in 20 kg buckets.

Storage

Xypex products must be stored dry at a minimum temperature of 7°C. Shelf life is one year.

Coverage

Required coating thickness will vary depending on project requirements. At the recommended thickness of 3.2 mm, one 20 kg bucket of Megamix I will cover 3.2 m². Megamix I may be applied as thin as 1.6 mm provided it is used as a cap coat over a coat of Xypex Concentrate.

For application thickness exceeding 10 mm, consult with the Technical Department of Xypex Australia 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 4 liters of Xycrylic Admix to a 20 kg pail of Megamix I. For bond and absorption, applied at 1.6 mm thick onto pressure washed surface. Results may vary significantly based on environmental, project and other conditions.		

NOTE: For bond and absorption tests, Megamix I was applied at 1.6 mm thick onto either pressure washed concrete block or 24 hr. old Xypex Concentrate.

POTABLE WATER EXPOSURE

AS/NZS 4020 "Products for Use in Contact with Drinking Water", Australian Water Quality Centre, Adelaide, South Australia

NSF 61 "Drinking Water System Component-Health Effects" NSF International, Ann Arbor, USA

Exposure testing of potable water in contact with Xypex-treated samples indicated no harmful effects.

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 ICR1 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 Prepare the mixing liquid by combining 1 part Xycrylic Admix with 2 parts clean water. Mix 4 - 4.2 litres of the mixing liquid with one 20 kg bucket of Megamix I powder. Mix thoroughly to a creamy consistency. Let mixture stand for 3 - 5 minutes, re-agitate and then apply.

4. APPLYING MEGAMIX I Ensure surface is saturated, surface dry (SSD) just prior to application. Apply Megamix I at a rate of 2.9 to 6.4 kg/m² to produce a thickness between 1.6 mm to 3.2 mm depending on the porosity of the substrate. For spray application contact the Technical Department of Xypex Australia 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 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. Setting time for Megamix I can vary in ambient temperatures above 30°C. Contact your local Xypex representative for technical support in such situations.

NOTE:

- i. Setting time can vary under differing ambient and concrete surface temperatures
- ii. Megamix I should not be mixed and placed at temperatures below 3°C and rising or above 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 appropriate bond strength.

5. CURING When used with Xycrylic Admix 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 15°C for at least 48 hours by appropriate heating and hoarding measures.

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 Department of Xypex Australia or your local Xypex 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 buckets and packaging. The Manufacturer also maintains comprehensive and up-to-date Material Safety Data Sheets on all its products. Each sheet contains health and safety information for the protection of employees and customers. Contact Xypex Australia or your local Xypex representative to obtain copies of Material Safety Data Sheets prior to product storage or use.

Warranty

Concrete Waterproofing Manufacturing Pty Ltd (trading as Xypex Australia) (the "Manufacturer") warrants that the products manufactured by it shall be free from material defects and of a consistent quality. Should any of the products be proven defective, the liability of the Manufacturer shall be limited to replacement of the product ex-factory. The Manufacturer gives no warranty as to fitness of the products for any particular purpose. The user shall: determine the suitability of the product for its intended use; comply with the directions for use and safe handling information available from Xypex; where necessary, engage an experienced Xypex applicator; and assume all risks and liabilities in connection with the use of this product.

