



# EUCO WINTER MIX POWDER

## POWDERED MASONRY MORTAR ACCELERATOR

EUCOLID CHEMICAL

### DESCRIPTION

**EUCO WINTER MIX POWDER (EWMP)** is a multi-purpose, calcium chloride based admixture designed to accelerate the normal setting rate of mortar, increase strength development at all ages and improve workability. EUCO WINTER MIX POWDER is the dry version of the EUCO WINTER ADMIXTURE. It produces virtually the same results in mortar as does the EUCO WINTER ADMIXTURE liquid formula. Tests of EUCO WINTER ADMIXTURE liquid show that both plastic and hardened mortar properties are improved.

### PRIMARY APPLICATIONS

EUCO WINTER MIX POWDER is used in mortar to lay brick, block, structural clay tile and glass block to eliminate the dangers connected with freezing mortar joints.

### FEATURES/BENEFITS

- Accelerates setting times of mortar
- Aids in protecting mortar in cold weather
- Cuts construction costs-no cold weather job delays
- Increases strengths at all ages
- Improves workability
- Does not affect bond strength of mortar

### TECHNICAL INFORMATION

#### Typical Engineering Data

#### Test Results: Prepared Mortars

	<u>Plain</u>	<u>With EWMP</u>
<b>Setting Rate:</b>		
Initial Set:	3 hrs 15 min	2 hrs 15 min
Final Set:	5 hrs 0 min	4 hrs 45 min
<b>Compressive Strength ASTM C109, 2" (50 mm) cubes</b>		
24 hours	4 psi (0.03 MPa)	65 psi (0.4 MPa)
3 days	500 psi (3.4 MPa)	600 psi (4.1 MPa)
7 days	780 psi (5.4 MPa)	1000 psi (6.9 MPa)
28 days	850 psi (5.9 MPa)	1200 psi (8.3 MPa)

<b>Water Retention</b> ASTM C91	
	76.1%      82.3%
<b>Absorption</b> ASTM C642	
	7.0%      5.6%

#### Tese Results: Prepared Mortars (white cement)

	<u>Plain</u>	<u>With EWMP</u>
<b>Setting Rate:</b>		
Initial Set:	3 hrs 0 min	2 hrs 10 min
Final Set:	5 hrs 0 min	4 hrs 30 min
<b>Compressive Strength ASTM C109, 2" (50mm) cubes</b>		
24 hours	8 psi (0.06 MPa)	45 psi (0.3 MPa)
3 days	300 psi (2.1 MPa)	330 psi (2.3 MPa)
7 days	630 psi (4.3 MPa)	640 psi (4.4 MPa)
28 days	775 psi (5.3 MPa)	800 psi (5.5 MPa)

<b>Water Retention</b> ASTM C91	
	74.0%      80.1%
<b>Absorption</b> ASTM C642	
	8.3%      7.5%

**Appearance:** EUCO WINTER MIX POWDER is a white, free flowing, fine grained powder.

### PACKAGING

EUCO WINTER MIX POWDER is packaged in cases of 1.25 lb (0.6 kg) bags (20 bags per case).

### SHELF LIFE

2 years in original, unopened package

## SPECIFICATIONS/COMPLIANCES

- When tested in accordance with ASTM C494, Type C, EUCO WINTER MIX POWDER complies and gives a freeze/thaw relative durability of 102%.
- In compliance with ASTM C494, Type C, this product will increase one day strength a minimum of 125% over plain and will quicken the setting time a minimum of 1 hour but no more than 3 hours and 30 minutes.

**NOTE:** *This product does not protect plastic mortar from freezing. This product will allow the mortar to gain strength at a faster rate in cold weather. The mortar should achieve a minimum strength of 500 psi (3.4 MPa) before exposure to freezing temperatures.*

## DOSAGE RATES

**Temperatures ranging from 15 to 32°F (-10 to 0°C)**

**Masonry Cements:** one bag of EUCO WINTER MIX POWDER to each bag of masonry cement.

**Portland Cement Lime:** Two bags EUCO WINTER MIX POWDER to each bag of Portland Cement.

**Above 32°F (0°C)**

**Masonry Cements:** one-half bag EUCO WINTER MIX POWDER to each bag of masonry cement.

**Portland Cement-Lime:** one bag EUCO WINTER MIX POWDER to each bag of Portland Cement.

## DIRECTIONS FOR USE

Empty contents of bag into mortar mixer with part or all of mixing water. Rotate mixer blades approximately 15 seconds until EUCO WINTER MIX POWDER has dissolved. Add cement, lime and sand or masonry cement and sand in normal manner. The Euclid Chemical Company recommends the contractor follow typical cold weather masonry practices. Please refer to "Recommended Practices for Cold Weather Masonry Construction" as published by the International Masonry Industry All-Weather Council or "Cold Weather Concrete Masonry Construction" as published by the National Concrete Masonry Association (publication TEK 16B).

**Mixing:** EUCO WINTER MIX POWDER is ready to use and requires no pre-blending.

## CLEAN-UP

Clean tools and equipment with water before mortar hardens.

## PRECAUTIONS/LIMITATIONS

- EUCO WINTER MIX POWDER must be completely dissolved in water prior to the addition of masonry cement, lime and sand.
- Test batches/mix design/sample slabs may be required due to variations in local cement and aggregates.
- Keep concrete from freezing until a minimum strength of 500 psi (3.4 MPa) is reached.
- In all cases, consult the Safety Data Sheet before use.

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