THE EUCLID CHEMICAL COMPANY



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EUCO WINTER ADMIXTURE

MASONRY MORTAR ACCELERATOR

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EUCO WINTER ADMIXTURE is a multi-purpose liquid admixture designed to accelerate the normal setting rate of mortar, increase strength development at all ages, and to improve workability. It can be used safely with gray or white portland cement or colored masonry cements without causing discoloration.

PRIMARY APPLICATIONS

EUCO WINTER ADMIXTURE 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 set times of mortar
- Aids in protecting mortar in cold weather
- Cuts construction cost no cold weather job delay
- Increases strengths at all ages
- Improves workability

SPECIFICATIONS/COMPLIANCES

- When tested according to ASTM C-494, Type C, EUCO WINTER ADMIXTURE complies and gives a freezethaw relative durability factor of 102%.
- •In compliance with ASTM C-494, Type C requirements, 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.

TECHNICAL INFORMATION

Typical Engineering Data

The following results were developed under laboratory conditions.

Test Results-Prepared Mortars

Brickset Mortar

Setting Rate @70°F (21°C) Plain with EWA
Initial Set 3 hrs15 min 2 hrs 15 min
Final Set 5 hrs 0 min 4 hrs 45 min

Compressive Strength

ASTM C-109 2" (50 mm) cubes

	<u>Plain</u>	with EWA
hours	4.3 psi (.03 MPa)	64 psi (0.4 MPa)
days	495 psi (3.4 MPa)	606 psi (4 MPa)
days	787 psi (5.4 MPa)	1015 psi (7 MPa)
days	857 psi (6 MPa)	1191 psi (8 MPa)
	days days	hours 4.3 psi (.03 MPa) days 495 psi (3.4 MPa) days 787 psi (5.4 MPa)

Water Retention ASTM C-91

76.1% 82.3%

Absorption ASTM C-642

7.0% 5.6%

Stoneset Mortar

Setting Rate @70°F (21°C) Plain with EWA
Initial Set 3 hrs 0 min 2 hrs 10 min
Final Set 5 hrs 0 min 4 hrs 30 min

Compressive Strength

ASTM C-109 2" (50 mm) cubes

24 hours 8.5 psi (0.6 MPa) 44 psi (0.3 MPa) 3 days 317 psi (2.2 MPa) 329 psi (2.3 MPa) 7 days 630 psi (4.3 MPa) 643 psi (4.4 MPa) 28 days 773 psi (5.3 MPa) 800 psi (5.5 MPa)

Water Retention ASTM C-91

74.0% 80.1%

Absorption ASTM C-642

8.3% 7.5%

Appearance-EUCO WINTER ADMIXTURE is a clear liquid with a deep blue color.

Dosage Rates

EUCO WINTER ADMIXTURE may be added directly to the gauging water [85 - 100°F (29-38°C) if possible] in the following proportions based on the temperatures expected during the 24 hours following the work:

<u>Temperature</u>	<u>EWA</u>	<u>Water</u>	
25°F (-4°C)	1 gal (3.8 liter)	15 gal (57 liter)	
20°F (-7°C)	1 gal (3.8 liter)	10 gal (38 liter)	
15°F (-9°C)	1 gal (3.8 liter)	7 gal (27 liter)	

Add an additional quart of EUCO WINTER ADMIXTURE for each bag of lime in the mix.

OR

EUCO WINTER ADMIXTURE may be added directly to each mortar batch. Add the quantity indicated per bag of cement and/or lime.

	Daily	Working Te	mperature*			
	32° (0°C)	25°(-4°C)	20°(-7°C)			
Portland Cement						
Mortars	1 quart	1 1/2 quart	2 quart			
	(0.9 liter)	(1.4 liter)	(1.9 liter)			
Masonry Cer	ment1 pint	1 1/2 pint	1 quart			
	(0.5 liter)	(0.7 liter)	(0.9 liter)			
Colored Mor	tar 1 pint	1 1/2 pint	1 quart			
	(0.5 liter)	(0.7 liter)	(0.9 liter)			

*The given temperatures are an assumed minimum with warming conditions.

Shelf life is 2 years in original, unopened package.

PACKAGING

EUCOWINTER ADMIXTURE is packaged in 55 gal (208 liter) drums, 5 gal (18.9 liter) pails, and 6/1 gal (3.8 liter) units per case.

DIRECTIONS FOR USE

At the recommended dosage rate, EUCO WINTER ADMIXTURE is added directly to the gauging water.

The Euclid Chemical Company recommends the contractor follow typical cold weatherconcreting practices such as the guidelines in ACI 306.1-90, Standard Specification for Cold Weather Concreting.

CLEAN-UP

Clean tools and equipment with water before mortar hardens

PRECAUTIONS/LIMITATIONS

- When filling metal door bucks and hollow metal window frames, the mortar must be stiff and packed tightly without voids.
- Use no more than the prescribed amount of EUCO WINTERADMIXTURE.
- Test batches/mix design/sample slabs may be required due to variations in local cement and aggregate.
- Keep mortar from freezing until a minimum strength of 500 psi (3.4 MPa) is reached.
- Do not add EUCO WINTER ADMIXTURE directly to dry cement.

Form Euco Winter Admixture-6.01

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