



EUCON[®] ECO-STRENGTH

STRENGTH ENHANCING ADMIXTURE

EUCLID CHEMICAL

PRODUCT INFORMATION

PACKAGING

Available in bulk, 275 gal (1041 L) totes, 55 gal (208 L) drums and 5 gal (18.9 L) pails

SHELF LIFE

1 year in original, unopened container

SPECIFICATION/COMPLIANCES

ASTM C494 Type S

ASTM C494 Type A, Pending

TECHNICAL INFORMATION

Specific Gravity: 1.25

DESCRIPTION

EUCON ECO-STRENGTH improves both early and late age strength development in concrete. Based on a highly engineered admixture technology that facilitates cement hydration, EUCON ECO-STRENGTH enhances strength development and allows for sustainable construction practices through possible reduction in cementitious content. Maintaining compressive strength development equivalent to that of a reference mix containing more cementitious is important in all construction projects requiring CO₂ emissions and total embodied energy reduction. In addition, EUCON ECO-STRENGTH allows for compressive strength improvement of many concrete mix designs using Type II, Portland Limestone Cements. EUCON ECO-STRENGTH is particularly effective where heat is present while curing, allowing earlier stripping of forms or restoring the serviceability of concrete repairs.

PRODUCT CHARACTERISTICS

FEATURES & BENEFITS

- Enhanced cement hydration
- Lowers CO₂ impact by allowing for reduction of cement
- Increases strength development at both early and late-ages
- Allows for reduction in cement content
- Higher replacement levels of supplementary cementitious materials (SCMs) can be incorporated
- Minimal effect on setting time
- Improved workability, finishing characteristics, and surface appearance
- Permits earlier stripping of forms and allows for the reuse of forms

PRIMARY APPLICATIONS

- Ready mixed concrete
- Prestressed concrete
- Precast concrete
- Self-consolidating concrete (SCC)

PRECAUTIONS/LIMITATIONS

- In all cases, consult the Safety Data Sheet before use.

TECHNICAL INFORMATION

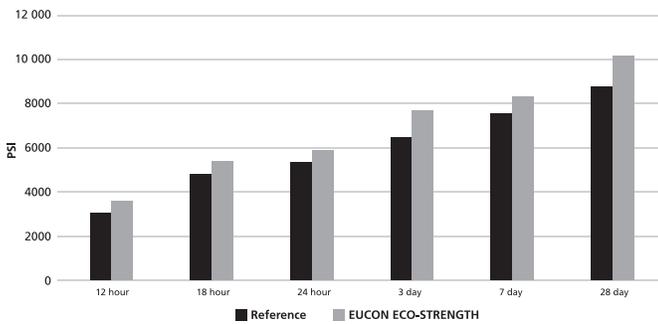
PERFORMANCE DATA

Improved performance with reduction of 9% cement.

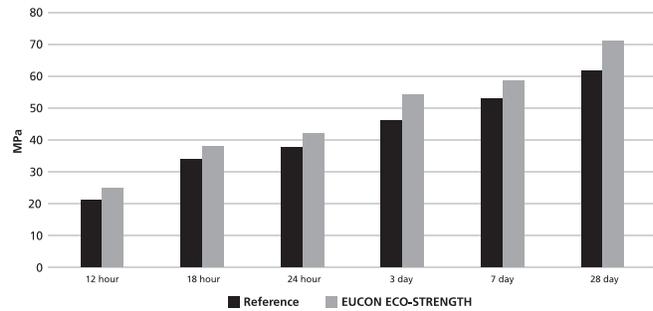
Reference Design		
Cement	I/II	850 lbs/yd ³ (504 kg/m ³)
Water	.38 w/c	325 lbs/yd ³ (193 kg/m ³)
Coarse Agg.	1/2" top limestone	1450 lbs/yd ³ (860 kg/m ³)
Fine Agg.	Sand	1416 lbs/yd ³ (840 kg/m ³)
HRWR	Plastol 6400	5 oz/cwt (326 mL/100kg)

EUCON ECO-STRENGTH Mix Design		
Cement	I/II	775 lbs/yd ³ (460 kg/m ³)
Water	.38 w/c	295 lbs/yd ³ (175 kg/m ³)
Coarse Agg.	1/2" top limestone	1515 lbs/yd ³ (899 kg/m ³)
Fine Agg.	Sand	1495 lbs/yd ³ (887 kg/m ³)
HRWR	Plastol 6400	5 oz/cwt (326 mL/100kg)
Strength Enhancer	EUCON ECO-STRENGTH	10 oz/cwt (652 mL/100kg)

Compressive Strength (PSI)



Compressive Strength (MPa)



DIRECTIONS FOR USE

The recommended dosage rate of EUCON ECO-STRENGTH for conventional concrete applications is 3-8 oz/100 lbs (200-520 ml/100 kg) of cementitious material, and 8-16 oz/100lbs (520-1040 mL/100kg) of cementitious material for Precast/High Performance applications. This recommendation should be verified with local materials and ambient conditions. Field trials should be conducted to characterize mixtures and other concrete properties. Please refer to the Technical Datasheet and MSDS for additional information.

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