# **EUCON ECO-STRENGTH**

## STRENGTH ENHANCING ADMIXTURE









#### PRIMARY APPLICATIONS

- Sustainable mix designs
- · Ready mixed concrete
- Prestressed concrete
- Precast concrete
- Self-consolidating concrete

#### **FEATURES AND BENEFITS**

- Increases strength development
- Reduces CO<sub>2</sub> emissions
- Improves cement hydration
- Higher replacement levels of supplementary cementitious materials (SCMs) can be incorporated

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 CO<sub>2</sub> emissions and total embodied energy reduction. EUCON ECO-STRENGTH is particularly effective where heat is present while curing, allowing earlier stripping of forms or restoring the serviceability of concrete repairs.

### **BENEFITS**

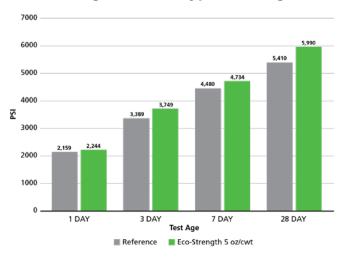
- Enhanced cement hydration
- Lowers CO<sub>2</sub> impact by allowing for reduction of cement
- Increases strength development at both early and late-ages
- Allows for reduction in cement content
- Higher replacement levels of supplementary cementitious materials (SCMs) can be incorporated
- Minimal effect on setting time
- Improved workability, finishing characteristics, and surface appearance
- Permits earlier stripping of forms and allows for the reuse of forms

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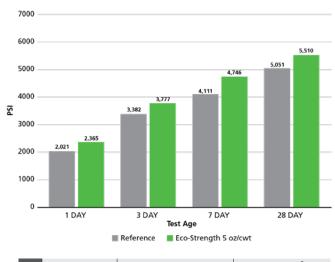
The test data below shows that the optimal dosage rate of 5 oz/cwt of Eucon Eco-Strength consistently produces an average of 500 PSI strength gain at 28 days. This allows concrete producers to reduce cement, gain strength and provide more sustainable mixes.

## Straight Cement Type I/II Design



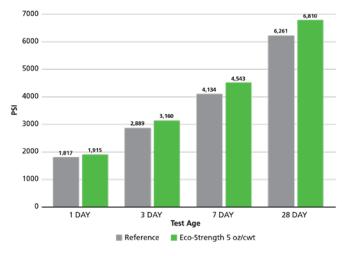
Mix Design	Cement	Type I/II	520 lbs/yd³
	Coarse Agg.	#57	1800 lbs/yd <sup>3</sup>
	Fine Agg.	C33 Sand	1447 lbs/yd³
	Water	.60 w/c	310 lbs/yd <sup>3</sup>

## **Straight Cement Type IL Design**



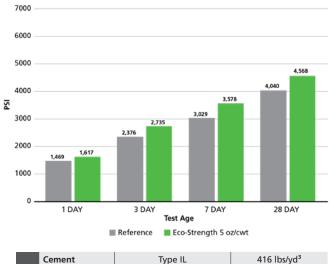
Mix Design	Cement	Type IL	520 lbs/yd <sup>3</sup>
	Coarse Agg.	#57	1800 lbs/yd³
	Fine Agg.	C33 Sand	1447 lbs/yd³
	Water	.60 w/c	310 lbs/yd³
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## Type IL with 20% Slag Design



Mix Design	Cement	Type IL	416 lbs/yd <sup>3</sup>
	Slag	GGBFS	104 lbs/yd <sup>3</sup>
	Coarse Agg.	#57	1800 lbs/yd <sup>3</sup>
	Fine Agg.	C33 Sand	1436 lbs/yd <sup>3</sup>
	Water	.60 w/c	310 lbs/yd³

## Type IL with 20% Class F Ash



Mix Design	Cement	Type IL	416 lbs/yd <sup>3</sup>
	Slag	Class F	104 lbs/yd³
	Coarse Agg.	#57	1800 lbs/yd³
	Fine Agg.	C33 Sand	1410 lbs/yd <sup>3</sup>
	Water	.60 w/c	310 lbs/yd³

DISCLAIMER: These results have been achieved in field and laboratory settings. Raw materials vary, therefore field trials with specific materials need to be run to verify results.