



Product Description – eLM Zero

For enabling Climate-Friendly Earth-Moist Concrete

Version 24/03

In the quest for sustainable construction, ecoLocked proudly presents eLM Zero. A ground-breaking product that combines the carbon negative benefits of biochar with the robustness and reliability required by the concrete industry. Our proprietary process transforms biochar into an optimized concrete admix material perfectly designed for concrete integration, delivering consistency and performance to industry standards without compromising on environmental responsibility.

Intended Use

eLM Zero is used to partially substitute aggregates according to our prescribed recipes to enable the sequestration of carbon in the concrete, producing a more climate-friendly and enhanced-performance earth-moist concrete.

Compatibility

eLM Zero is compatible with cementitious binders, geopolymer SCMs, mineral additives and superplasticizers commonly found in the industry.

Consistency and Surface Finish

There are no significant changes in appearance or surface finish of the earth-moist concrete mix containing eLM Zero aside from colour. The extent of the colour modification depends on the eLM Zero dosage. eLM Zero has been designed to provide consistency regardless of our customer's concrete composition delivering predictable and homogeneous surface appearance and finish every time.



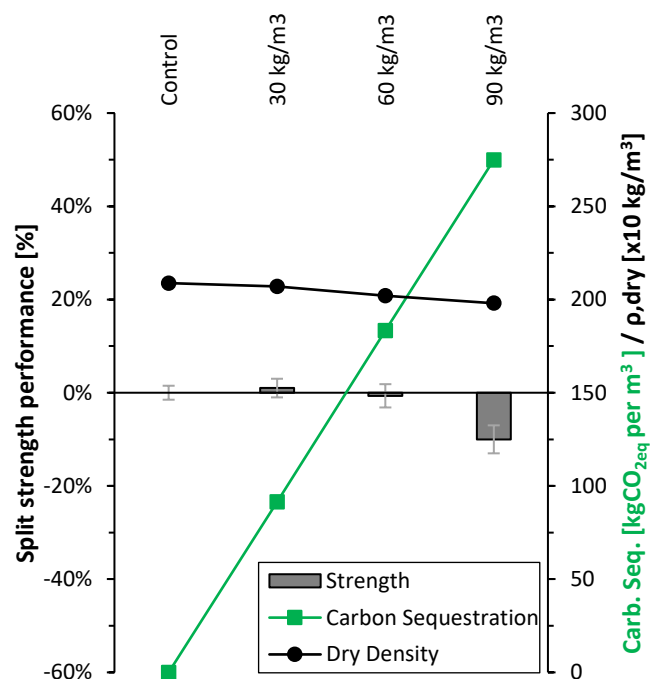
Packaging

eLM Zero can be delivered in these packaging systems:

Small bags/sacks -	15 kg
Big bags -	400 kg
Bulk -	~10t

Recommended Dosage

The recommended dosage of eLM Zero depends on the specified application and performance requirements of the earth-moist concrete mix. The chart below describes a reference example of an earth-moist mix with a cement content of 312 kg/m³. The dosage of eLM Zero varies between 30 – 90 kg/m³ affecting both strength and the carbon sequestration of biochar per m³ of concrete. The strength performance was maintained at dosages up to and below 60 kg/m³ while achieving a carbon sequestration of 180 kg CO_{2eq}. per m³. At doses above 60 kg/m³ the carbon sequestration can reach the equivalent quantity of the embodied carbon of the final concrete product.



Consultation

As part of our eLM Zero product offering, we are pleased to provide consultation services including mix design optimization and carbon accounting to validate desired performance and carbon storage potential.