



Innovations that work.™

## AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT

5 December 2016

### EDENCRETE™

## FINAL ASTM C494 “S” TEST PROGRAMME RESULTS

### HIGHLIGHTS

- ASTM C494 “S” Test Programme for EdenCrete™, which over a 12 months period measured the changes in performance of a standard concrete mix when EdenCrete™ was added, has been successfully completed.
- The final compressive strength test of concrete, enriched with 3.5 gallons of EdenCrete™ per cubic yard, continued the earlier trend and showed an impressive 37% increase in compressive strength at 365 days, compared with identical concrete of the same age without EdenCrete™.
- Some of the other very positive results that were achieved include:
  - 41% increase in compressive strength at 56 days (ASTM C39)
  - 32% increase in flexural strength at 56 days (ASTM C78)
  - 22% increase in split tensile strength at 56 days (ASTM C496)
  - 59% reduction in the rate of abrasion at 90 days (ASTM C105)
  - 39% reduction in shrinkage (ASTM C157)
  - 9.5% increase in freeze/thaw resistance (ASTM C666)
- The highly successful completion of the ASTM C494 “S” trial programme is a major milestone that will enable:
  - The approval process to continue towards a future approval to use EdenCrete™ on highways by a number of other State Departments of

For personal use only

Transportation in the USA to which Eden has applied for approval, but that require the prior completion of the ASTM C494 Programme, and

- Assessment of the performance EdenCrete™ for possible future use of EdenCrete™ by a range of groups including engineers and architects.

## DETAILS

Eden Innovations Limited (“Eden”) (ASX: EDE) is pleased to announce the successful completion of the ASTM C494 “S” testing programme for EdenCrete™ enriched concrete that have been undertaken by Eden Innovations in Colorado over the past twelve months, to test EdenCrete™ in accordance with the standards and the procedures of ASTM C494 “S”, producing extremely positive results.

### Results

The details of all the results achieved during the 12 months trial period are set out in Figure 1 below.

EdenCrete™ ASTM C494 Results (Reported by Intelligent Concrete LLC)								
Test	% Increase over Reference; Dosage = 3.5 gpy							
	Age (Days)							
	1	3	7	28	56	90	180	365
Compressive Strength (ASTM C39)	25%	35%	39%	41%	41%	39%	38%	37%
Flexural Strength (ASTM C78)		25%	19%	32%				
Split-tensile Strength (ASTM C496)				29%	22%			
Abrasion Resistance (ASTM C779 Proc C)					56%	59%		
Length Change (ASTM C157; Shrinkage)	39% reduction							
Time of Set (ASTM C403)	Reduced: Initial Set 3 min, Final Set 4 min							
Freeze/Thaw Resistance (ASTM C666)	Reference = 88.0, EdenCrete = 96.4. 9.5% enhancement							
<i>Program Complete.</i>								
<i>EdenCrete™ successfully conforms to the ASTM C494 Specification for Type S chemical admixtures used in concrete.</i>								

Figure 1.

### Major Milestone

The completion of the ASTM C494 “S” trial programme is another major milestone for EdenCrete™, which will facilitate:

- The continuation of the approval process, towards a future approval to use EdenCrete™ on highways, by other State Departments of Transportation in the USA to which Eden has already applied for approval, but which first require the completion of the ASTM C494 Programme, in addition to satisfaction of other later conditions; and

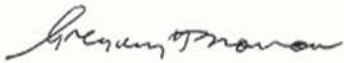
- **Assessment of the performance of EdenCrete™** for its possible future use by a range of groups including engineers and architects.

## **Conclusion**

The highly successful completion of the ASTM C494 “S” trial programme is another major milestone in Eden’s efforts to accelerate its already significant progress towards achieving a longer term goal of broad penetration by EdenCrete™ into the huge US concrete and infrastructure markets.

### **BACKGROUND**

*EdenCrete™ is Eden’s 100% owned, proprietary carbon-strengthened concrete additive, one of the primary target markets for which is improving the performance of concrete used in the construction and maintenance of concrete roads, bridges, airport runways and other infrastructure. Additionally, it has potential for use in a wide range of other concrete applications including high-rise building construction, marine and coastal applications, dams, water storage and pipelines, and pre-fabricated concrete structures and products.*



**Gregory H. Solomon**  
Executive Chairman