



	FEATURES	<ul style="list-style-type: none"> • Enhances performance & durability • Provides secondary reinforcement • Eliminates plastic shrinkage cracking up to 100% • Alkali resistant & non-corrosive • Insoluble in water • No fiber protrusion for easy finishing • High impact resistance • Excellent bond with concrete paste 	
	BENEFITS	<p>The fiber added to concrete chemically locks in the fresh concrete matrix, controlling plastic shrinkage. It provides secondary reinforcement which helps eliminate crack formation that causes permanent weakening of the resultant concrete. Concrete is less permeable, has a smooth surface, is highly impact resistant and improves your Bottom Line.</p>	
	APPLICATIONS	<p>The characteristics lend itself to a variety of concrete applications including: slab-on-grade, precast concrete, shot-crete, stucco, decorative and other specialty concrete applications.</p>	
	DOSAGE RATES	<p>For general applications such as slab-on-grade, a standard dosage of (1) bag/yd³ is recommended. Other fibers require higher dosage rates to achieve similar performance.</p>	
	MIXING	<p>Follow ASTM C-94 guidelines. The fiber can be added directly to the mix at the jobsite or during batching of ingredients, but not as the first ingredient and should be mixed for a minimum of 5 minutes at full mixing speed.</p>	
	PACKAGING	<p>1 Carton/32 Bags; 36 Cartons/Pallet; Truckloads are available. Bales are available upon request.</p>	
	FINISHING	<p>There is NO surface protrusion. Concrete can be pumped or placed using conventional equipment and can be used with all finishing techniques including power and hand troweling, broom finished and colored concrete.</p>	
	PHYSICAL PROPERTIES	<p>Material Specific Gravity (g/m³) Elastic Modulus (GPa) Tenacity (MPa) Decomposition Temperature Acid & Alkali Resistance Color Dispersity Rate Filament Diameter (μ) Fiber Count (fiber/kg) approx. Fiber Length (mm)</p>	<p>Modified Acrylic 1.17 >10.5 >650 330° C/ 626° F Excellent White Excellent 10-15 794,000,000 6 (other lengths available)</p>

TESTING

Introduction: This document presents the summary of the laboratory testing performed on samples of concrete containing the fiber at an application rate of 0.66 lb/cy (0.39 kg/cm). The scope of the testing was as follows:

Perform laboratory batching of concrete with and without fibers according to Section 4.0 of ICC-ES Acceptance Criteria for Concrete with Synthetic Fibers (AC32-2002) for:

- A. Flexural Strength (ASTM C 78-10)
- B. Bond Strength (ASTM C 234-91)
- C. Impact Resistance Annex E (ICC-ES AC32-03, Annex E)
- D. Plastic Shrinkage Cracking Annex A (ICC-ES AC32, Annex A)



Summary of Test Results:

The following is a summary of the tests results:

<u>Test</u>	<u>Control</u>	<u>Test-Fibers</u>	<u>% of Control</u>
Flexural	3.96 MPa (575 psi)	4.38 MPa (635psi)	110
Bond Strength	80.17 kN (18,024 psi)s	89.02 kN (20,012 psi)	111
Impact Resistance			
7 days	4 blows	9 blows	225
28 days	8.6 blows	16.6 blows	193
Plastic Shrinkage Cracking	(1)	---	90.4% (1) Average Reduction

(1) 40% difference from the control sample to test sample is the minimum ICC-ES AC32 requirement for reduction of plastic shrinkage.

Conclusion:

Based on the test results, the fiber, used at a dosage rate of 0.66 lb/yd³ (0.39 kg/m³) exceeded the test parameters required by ICC-ES AC32.