ROBERT L. NELSON & ASSOCIATES, INC.
CONSTRUCTION MATERIALS LABORATORY
1220 REMINGTON ROAD
SCHAUMBURG, ILLINOIS 60173

847/882-1146

Tamms Industries Company
3835 State Route 72
Kirkland, IL 60146

September 9, 2004

REPORT OF TESTS

SUBJECT: **Physical Analysis of Tamms' Flexolith**

PROJECT: Tamms' Research Program

SPECIFICATION: ASTM C 881, "Specification for Epoxy-Resin-Base Bonding Systems for Concrete" Type III - Class B and C

ASTM D 2393, "Test Method for Viscosity of Epoxy Resins and Related Components"

TEST DATA

SAMPLE DESIGNATION: Flexolith

MIX RATIO: **1 : 1**

CURING: 75°F @ 50% Relative Humidity (Unless Stated)

PHYSICAL PROPERTIES OF FLEXOLITH
All properties at 75°F, 50% RH unless stated otherwise

Mixed Viscosity (ASTM D 2393)		1720
Gel Time, min. (ASTM C 881) Class B	@ 50°F	36
	@ 75°F	18
Tensile elongation, % (ASTM D 638)		48
Tensile Strength, psi (ASTM D 638)		2780
Compressive Strength, psi (ASTM D 695)		
Neat Epoxy Resin		
4 hours		1420
24 hours		3600
7 days		5675
Modulus of Elasticity (ASTM D 695)		
Neat Epoxy Resin		88,000

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PHYSICAL PROPERTIES OF FLEXOLITH

All properties at 75°F, 50% RH unless stated otherwise

Compressive Strength, psi (ASTM C109) Mortar (1:2.5 by volume with coarse aggregate)	
4 hours	1545
24 hours	7040
7 days	7643
Water Absorption, % (ASTM D 570), max.	0.27
Bond Strength, psi (ASTM C 882)	
2 days	2100
7 days	2400
Abrasion Resistance (ASTM C 501) 1000 gms load, CS17 wheel, wear index	78
Ash Content, % (ASTM D 482)	.2
Volatile Content, %	.5
Thermal Compatibility (ASTM C 884-92)	Passes
Effective Shrinkage (ASTM C 883)	Passes

Respectfully submitted,

ROBERT L. NELSON & ASSOCIATES, INC.

Robert L. Nelson
President