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Massachusetts Materials Research, Inc.

P.O. BOX 810 • 1500 CENTURY DRIVE • WEST BOYLSTON, MA 01583 • TEL. 508-835-6262 • FAX 508-835-9025

ANALYTICAL REPORT

SilcoTek® Corporation
225 PennTech Drive
Bellefonte, PA 16823

DATE March 30, 2017

P.O. NO.: 05395CM

MMR NO.: 116274

MMR ID#: 1

PAGE #: 1 of 1

ATTENTION: David Smith, Ph.D.

SAMPLE IDENTIFICATION

Routine Cutting, Machine Tensile (s/s)
Tensile test, Test-ETT(450C), Hardness
testing, ASTM methods per Quote 23744,
ID#1: Control Sample

TENSILE PROPERTIES

(ASTM E8-16a)

	Room Temp	450°C
Ultimate Strength (psi)	93,000	71,500
.2% Yield Strength (psi)	49,600	31,500
% Elongation in 4D	56	37
% Reduction of Area	78	74
Break Location	Gage	Gage

CHARPY IMPACT (ASTM E23-12c)

(Test Temperature 70°F - Full Size Specimens)

Sample I.D.	Energy of Rupture (Ft/lbs)
1	264
2	264
3	264
Average	264

All samples did not break.

HARDNESS

94 RBW

MASSACHUSETTS MATERIALS RESEARCH, INC.


Thomas W. Baxter

Manager of Testing Services

The recording of false, fictitious or fraudulent statements or entries on the certificate may be punishable as a felony under federal law.

Chemical analysis performed by Inductively Coupled Plasma/Optical Emission Spectrometer. Carbon, sulfur, nitrogen, hydrogen and oxygen performed by Leco Combustion. Mechanical and metallurgical testing performed per MMR Procedures.

The results reported above apply only to the test sample(s) provided.

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ANALYTICAL REPORT

SilcoTek® Corporation
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Bellefonte, PA 16823

DATE: March 30, 2017

P.O. NO.: 05395CM

MMR NO.: 116274

MMR ID#: 2

PAGE #: 1 of 1

ATTENTION: David Smith, Ph.D.

SAMPLE IDENTIFICATION

Routine Cutting, Machine Tensile (s/s)
Tensile test, Test-ETT(450C), Hardness
testing, ASTM methods per Quote 23744,
ID#2: Dursan Sample

TENSILE PROPERTIES

(ASTM E8-16a)

	Room Temp	450°C
Ultimate Strength (psi)	96,000	76,500
.2% Yield Strength (psi)	52,000	32,600
% Elongation in 2"	53	40
% Reduction of Area	77	71
Break Location	Gage	Gage

CHARPY IMPACT (ASTM E23-12c)

(Test Temperature 70°F - Full Size Specimens)

Sample I.D.	Energy of Rupture (Ft/lbs)
1	264
2	264
3	264
Average	264

All samples did not break.

HARDNESS

94 RBW

MASSACHUSETTS MATERIALS RESEARCH, INC.

Thomas W. Baxter
Manager of Testing Services

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