

Lab No: 89-86413

Date:  
September 19, 1989

**ny**  
**NEW YORK TESTING LABORATORIES, INC.**  
CALL BOX 1021, 75 URBAN AVENUE, WESTBURY, L.I., N.Y. 11590 • (516) 334-7770 • (212) 297-1440

**REPORT OF TESTS**

Client — 89-86413 - Thortex America Inc.  
Material — Two (2) Samples of Epoxy Resin  
Client's Order No. — Pending  
Identification — As Indicated Below  
Submitted for — Flexural Strength, Compressive Strength and  
Tensile Shear Strength

Material Identification:

One (1) Sample marked Belzona Super-Metal  
One (1) Sample marked Thortex Metal-Tech E.G.

1. Flexural Strength; in accordance with ASTM D790

The submitted samples were subjected to a flexural load using a Lloyd MX50 Universal Testing Machine.

Conditioning Procedure: 96 Hours at 23°C and 55% Relative Humidity

Support Span Length, in.: ..... 8

Support Span-to-depth ratio: ..... 16 to 1

Rate of Cross-head motion, in/min.: ..... 0.21

Loading Method: 3-Point

Radius of Supports and Loading Nose, in.: ..... 0.125

Results:

See page two.

Report on sample by client applies only to sample.

Report on samples by us applies only to lot sampled.

Information contained herein is not to be used for reproduction except by special permission.

Samples retained for thirty days maximum after date of report unless specifically requested otherwise by client. The liability of the New York Testing Laboratories, Inc. with respect to the services charged for herein, shall in no event exceed the amount of the invoice.

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Page 2

Lab No. 89-86413

1. Flexural Strength - cont'd.

Results:

Sample Identification	BELZONA					THORTEX				
	1	2	3	4	5	1	2	3	4	5
Specimen Depth, in.:	0.500	0.500	0.499	0.500	0.500	0.498	0.500	0.500	0.499	0.500
Specimen Width, in.:	0.520	0.518	0.515	0.515	0.518	0.510	0.509	0.512	0.512	0.515
Maximum Load, lbs.:	90	95	92	98	90	85	82	88	90	86
Flexural Strength, psi:	8,300	8,800	8,600	9,100	8,300	8,100	7,700	8,250	8,500	8,000
Average, psi:	8,600					8,100				

# NEW YORK TESTING LABORATORIES, INC.

Page 3

Lab No. 89-86413

2. Compressive Strength; in accordance with ASTM D695

The submitted samples were subjected to a compressive load using a Lloyd MX50 Universal Testing Machine.

Conditioning Procedure: 96 Hours at 23°C and 55% Relative Humidity

Specimen Length, in.: ..... 1.6

Specimen Diameter, in.: ..... 0.8

Testing Speed, in/min.: ..... 0.05

Results:

See page four.

# NEW YORK TESTING LABORATORIES, INC.

Page 4

Lab No. 89-86413

Compressive Strength - cont'd.

Results:

Sample Identification	BELZONA					THORTEX				
	1	2	3	4	5	1	2	3	4	5
Area, sq. in.:	0.502	0.502	0.502	0.502	0.502	0.502	0.502	0.502	0.502	0.502
Maximum Load, lbs.:	7,740	7,910	8,060	7,900	8,200	8,820	8,900	9,000	8,920	8,840
Compressive Strength, psi:	15,400	15,800	16,100	15,700	16,300	17,600	17,700	17,900	17,800	17,600
Average psi:			15,900					17,700		

# NEW YORK TESTING LABORATORIES, INC.

Page 5

Lab No. 89-86413

### 3. Tensile Shear Strength; in accordance with ASTM D1002

The submitted samples were subjected to a tensile load using a Lloyd MX50 Universal Testing Machine.

Conditioning Procedure: 96 Hours at 23°C and 55% Relative Humidity

Base Metal Identification: ..... Steel ASTM A109 Grade 2

Base Metal Thickness, in.: ..... 0.062

Base Metal Surface Roughness,  
microinches: ..... 65 R.A. (Roughness Average)

#### Results:

See page six.

# NEW YORK TESTING LABORATORIES, INC.

Page 6

Lab No. 89-86413

### 3. Tensile Shear Strength - cont'd.

Results:

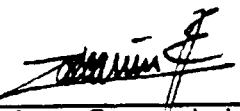
Sample Identification	BELZONA					THORTEX				
	1	2	3	4	5	1	2	3	4	5
Specimen Width, in.:	1.000	0.999	1.000	1.000	0.995	1.005	0.995	1.000	1.000	1.000
Length of Overlap, in.:	1.000	1.000	0.995	0.998	0.980	1.000	0.980	0.990	0.995	0.975
Area, sq. in.:	1.000	0.999	0.995	0.998	0.975	1.005	0.975	0.990	0.995	0.975
Maximum Load, lbs.:	220	210	220	200	210	360	300	280	290	310
Shear Strength, psi:	220	210	220	200	215	360	310	280	290	320
Average, psi:			210					310		

# NEW YORK TESTING LABORATORIES, INC.

Page 7

Lab No. 89-86413

## CERTIFICATION AND SIGNATURES:

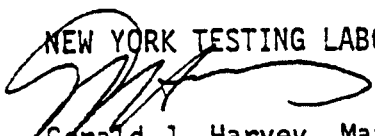
Test Conducted By:   
Juan Zaccarini

  
George DeMott  
Quality Assurance Manager

We certify that this report is a true report of results obtained from our tests of this material.

Respectfully submitted,

NEW YORK TESTING LABORATORIES, INC.

  
Gerald J. Harvey, Managing Director

To:

Thortex America, Inc.  
c/o Molecular Systems Inc.  
150 Executive Drive  
Edgewood, N. Y. 11717

Att: Andrew Perrin

Report on sample by client applies only to sample.

Report on samples by us applies only to lot sampled.

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