

NEWSLETTER

October 2014

Society for the Advancement of Materials and Process Engineering

New Jersey Chapter



We are Pleased to Present the Featured Guest Speaker for our October 2nd Meeting:

Testing the Test: Diagnosing a Broken Test Protocol

Russell J. Caspe, Ph.D.
Materials and Process Engineering
Gentex Corporation
324 Main Street
Simpson PA 18407-0315
570-282-8588
rcaspe@gentexcorp.com

ABSTRACT

Ground soldier helmet systems are subject to a variety of ballistic tests. The most common test which simulates fragmentation threats is the V50 test which predicts the velocity at which it can be expected that 50% of a given fragment size will completely penetrate the armor. 4 grain right center cylinder fragments have posed an



exceptional challenge to Gentex particularly in aramid reinforced phenolic/polyvinyl butyral systems. Tests performed on identical helmets at different locations and even at the same location but at different times have resulted in wide V50 swings causing unexpected test failures. This presentation will explore the effort Gentex undertook to determine the root cause, which surprisingly shone a spotlight on the hardened steel, precisely machined fragments rather than the helmet systems themselves.

BIOGRAPHY

Russell Caspe has been with the Gentex Corporation since September 2013 as a Materials Scientist and is the Section Lead of the Advanced Engineering Group. Dr Caspe is responsible for materials development and evaluation for use in both aircrew and ground helmet systems. While most of his work involves various forms of low-resin content fiber reinforced polymers, Dr Caspe's bailiwick also includes other material classifications such as ceramic matrix composites, neat plastics, and adhesive

systems. Dr Caspe received his BS in Ceramic Engineering from Rutgers University and his PhD in Materials from the University of Manchester (UK). His dissertation focused on the chemistry and cure kinetics resulting from accelerated cure rates of carbon reinforced epoxy composites.

MEETING DETAILS

Place: Bridgewater Manor, Bridgewater, NJ; (908) 658-3000
Time: 5:45 – 8:30

Cost: \$10.00 Adv Registration; \$15.00 at Door; Students – Free
This meeting is open to all SAMPE members, spouses, guests, and other interested parties

Reservations contact John Osterndorf at 973-248-5885 or at jfo0956@gmail.com by noon Wednesday before the meeting.
Directions to Bridgewater Manor: From I-287 north, take exit 22A (206 south). Go thru two lights, Bridgewater Manor is on right. From I-287 south, take exit 22. Make right at end of ramp. Make next left, a jughandle to cross 202/206 to go south on 202/206. Go thru three lights, Bridgewater Manor is on the right.

NEWSLETTER

October 2014

Society for the Advancement of Materials and Process Engineering

New Jersey Chapter



2014 – 2015 Meeting Schedule

September 4, 2014 – Tom Farnan, Cimquest Inc.

October 2, 2014 – Russell Caspe, Gentex Corp

October 13 - 16, 2014 – CAMX, Orlando FL, sponsored jointly by SAMPE and ACMA

November 6, 2014 – John Busel, ACMA

December 4, 2014 – Joe Landolina, Suneris Co

February 5, 2015 – TBD

March 5, 2015 – TBD

April 2, 2015 – TBD

May 7, 2015 – TBD

May 17 -21, 2015 – SAMPE Tech, Baltimore MD

June 4, 2015 – TBD

July 2015 – 32nd NJ SAMPE Golf Tournament, Picatinny Arsenal



NEWSLETTER

October 2014

Society for the Advancement of Materials and Process Engineering



New Jersey Chapter

Executive Board

CHAIR

Borys Schafran
Evonik Corporation
973-929-8172
borys.schafran@evonik.com

TREASURER

John F. Osterndorf
973-248-5885
jfo0956@gmail.com

SECRETARY

Megan Casey
Lonza Inc.
201-316-9489
megan.casey@lonza.com

PROGRAM

Howard Kliger
732-469-7646
hskliger@comcast.net

MEMBERSHIP

Jane Arlauskas
Evonik Corporation
973-929-8165
jane.arlauskas@evonik.com

DIRECTORS

Louis A. Pilato
Pilato - Consulting
732-469-4057/fax: 732-764-9747
lapilato@optonline.net



NEWSLETTER

October 2014

Society for the Advancement of Materials and Process Engineering New Jersey Chapter



Past Chairs, SAMPE Fellows and Senior Honorary Members

CHAPTER CHAIRS

1977 – 1978 Raymond F. Wegman
1978 – 1979 William J. Russell
1979 – 1980 Michael Michno
1980 – 1981 Fred H. Ancker
1981 – 1982 Natalia Chujko
1982 – 1983 Robert J. Narsavage
1983 – 1984 Richard W. Reiter
1984 – 1985 Howard S. Kliger
1985 – 1986 John Burlage
1986 – 1987 John F. Osterndorf
1987 – 1988 Thomas J. Green
1988 – 1989 Harry S. Katz
1989 – 1990 Benjamin M. Rasmussen
1990 – 1991 Harry Tenney
1991 – 1993 Louis A. Pilato
1993 – 1994 John Burlage
1994 – 1995 Richard A. Walther
1995 – 1996 Frans van Antwerpen
1996 – 1997 Kathleen A. Froelich
1997 – 1998 Gail D. DiSalvo
1998 – 1999 Ash Chopra
1999 – 2013 Benjamin M. Rasmussen
2013 – 2015 Borys Schafran

SAMPE FELLOWS

Fred H. Ancker
Harry S. Katz
Dr. Howard S. Kliger
Dr. Frank K. Ko
Robert Pickney
Dr. Louis A. Pilato
Leonard Poveromo
Raymond F. Wegman
Charles Weizenecker
Dr. Carl H. Zweben

CHAPTER CHAIR EMERITUS

Benjamin M. Rasmussen

SENIOR HONORARY MEMBERS

Richard G. Adams
Gail DiSalvo
Edward A. Gallagher
Robert Golick
Harry Katz
Howard S. Kliger
Charles N. Muldrow
Louis A. Pilato
Benjamin M. Rasmussen
William D. Timmons
Raymond F. Wegman
Charles Weizenecker

SAMPE Best Chapter Award Winner:

1990, 1991, 1992, 1993, 1995, 1996, 1997, 1998,
1999, 2000, 2001

SAMPE Chapter Service Excellence Award Winner:

2002, 2003, 2004, 2005, 2006 (award retired
after 2006)

SAMPE Chapter Sponsored Conferences:

ISSE – 1990 (Anaheim), 1994 (Anaheim),
1996 (Anaheim), 1998 (Anaheim), 2002 (Long Beach)

ISTC – 1981 (Mt. Pocono), 1989 (Atlantic City),
2006 (Dallas), 2009 (Wichita), 2012 (Charleston)

ISEC – 1994 (Parsippany)



NEWSLETTER

October 2014

Society for the Advancement of Materials and Process Engineering

New Jersey Chapter



Chapter Sponsors

Airtech International, Inc.

Peter Grantham
5700 Skylab Road
Huntington Beach, CA 95647
714-899-8100
Fax: 714-899-8179
pgrantham@airtechintl.com
www.airtechintl.com

Daicel USA Inc.

Masaya Omura
One Parker Plaza
400 Kelby St
Fort Lee NJ 07024
omura@daicel.us.com
www.daicel.com

Fabric Development Inc.

Mary P. Shafer
1217 Mill Street
Quakertown, PA 18951
215-536-1420
mshafer@fabricdevelopment.com
www.fabricdevelopment.com

Coast Line International

Patrick McMenanin
200 Dixon Ave
Anityville, NY 11701
631-226-0500
patrickm@coast-lineintl.com

Curtiss-Wright IMR

Russell Shaffer
222 Cameron Dr
Phillipsburg, NJ 08865
908-235-8767
rshaffer@curtisswright.com

Evonik Corporation

Borys Schafran
299 Jefferson Rd
Parsippany, NJ 07054
973-929-8172
Fax: 973-929-8161
borys.schafran@evonik.com
www.evonik.com

General Magnaplate

Edmund Aversenti
1331 US Route 1
Linden, NJ 07036
908-862-6200
Fax: 908-862-6110
eaversenti@magnaplate.com
www.magnaplate.com

Kenrich Petrochemicals

Salvatore J. Monte
140 East 22nd St., POB 32
Bayonne, NJ 07002
201-823-9000
Fax: 201-823-0691
sjmonte@4kenrich.com
www.4kenrich.com

Gentex Corporation

Russell Caspe
PO Box 315
Carbondale,, PA 18407
570-282-8588
rcaspe@gentexcorp.com



NEWSLETTER

September 2014

Society for the Advancement of Materials and Process Engineering

New Jersey Chapter



Chapter Sponsors (continued)

Henkel Corporation

Robert W. Bryan
Business Dev Manager
Loctite Corporation
32100 Stephenson Highway
Madison Heights, MI 48071
248-577-5984 248-565-6191
robert.bryan@us.henkel.com
www.loctite.com

Mektech Composites Inc.

Aram Mekjian
40 Strawberry Hill Road
Hillsdale, NJ 07642
201-666-4880
Fax: 201-666-4303
mekmail@prodigy.net

Novoset LLC

Dr. Sajal Das
87 Main Street,
Peapack, NJ 07977
908-470-4200
www.novoset.com

Technical Fibre Products Inc.

John Haaland
679 Mariaville Rd
Schenectady, NY 12306
518-280-8500
John.haaland@techfibres.com
www.tfpglobal.com

Lonza Inc.

Megan Casey
25 Commerce Drive
Allendale, NJ 07401
megan.casey@lonza.com
www.lonza.com

Northern Composites

Michael Leedie
102 Tide Mill Road
Hampton, NH 03842
860-550-3240
mleedie@northerncomposites.com
www.northerncomposites.com

Stiles Machinery Inc

Adam Lopuk
3965 44th Street SE
Grand Rapids, MI 49512
Cell 336-906-1977
alopuk@stilesmachinery.com
www.stilesmachinery.com

3M Corp.

Kevin Merlini
Aerospace & Coml Trans Div.
325 Cherry Lane
Glenside PA 19038
215-327-3842
kwmerlini@mmm.com
www.3m.com



NEWSLETTER

October 2014

Society for the Advancement of Materials and Process Engineering



New Jersey Chapter

Sponsor of the Month Stiles Machinery Inc.

Stiles Machinery Inc. is the world's largest independent distributor of advanced CNC equipment for processing wood panels, solid wood, composites, plastic, glass, stone, and other materials. Founded in 1965, Stiles offers a Total Production Solution approach to manufacturing, from equipment integration and manufacturing consulting to education, service and parts. Large processor or small shop, Stiles is your single best source for the tools and the knowledge you need to be competitive in your market.

Headquartered in Grand Rapids, Michigan, Stiles has regional locations in Toms River NJ, High Point NC, Coppell TX, and Rancho Cucamonga CA.

For over 45 years, Stiles has been helping manufacturers succeed by meeting the needs of a changing industry. Tasks once done manually can now be accomplished with the push of a button or a mouse click, allowing sophisticated software applications and CNC machines to work hand-in-hand with traditional craftsmanship and artistry. The world's largest independent distributor of quality machinery, Stiles is focused on offering solutions that improve process technology and maximize production capacity. And, as the industry continues to evolve, Stiles maintains its passionate commitment to make your business a success.

Stiles Machinery Inc
Adam Lopuk
3965 44th Street SE
Grand Rapids, MI 49512
Cell 336-906-1977
alopuk@stilesmachinery.com
www.stilesmachinery.com

