

NEWSLETTER

February 2016

Society for the Advancement of Material and Process Engineering

New Jersey Chapter



We are Pleased to Present the Featured Guest Speakers for our February 4th Meeting:

Rob Demaree

Dennis Prentice

IMR Test Labs, Curtiss-Wright

Lansing, NY

Rob.demaree@imrtest.com

Special Considerations for Testing and Failure Analysis as Fiber Composites Move Into New Markets

Abstract

While the high-performance fiber-reinforced composites are benefitting from automation and economies of scale to bring down costs, other low-cost fiber materials have been moving into new markets, each of which poses challenges for materials testing and for failure analysis. Infrastructure – including field retrofitting of structures – is one of the industry's most visible new fields, with the potential for thousands of verification



tests – and many forensic analyses – each year. These projects occur in a wide array of conditions compared with the conditioned environment seen by factory-cured parts, and often use stitched and hand-mixed resins. At the same time, a wide array of thermoplastic systems, compounded with fiber reinforcement, has entered the injection molding market for many applications including down-hole applications. Testing and failure analysis of these systems includes all of the limitations of traditional FRP, with added problems for injection processes – mold filling/ voids, fiber orientation, thermal degradation and hydrolysis. Laboratories studying these new composite systems must have broad capability to analyze the system, the manufacturing process and the field environment together when characterizing materials.

Biography

Rob Demaree is the manager for Nonmetallic Chemistry at IMR Test Labs. Rob's group conducts polymer testing for material characterization, thermal and physical properties, contamination, cleanliness and failure analysis. Prior to IMR, Rob has held R&D positions in the fiber optic cabling and electrical laminate industries, and has worked in power generation. Rob Holds a BSME and an MS-Materials Science and Engineering, from Virginia Tech.

Dennis Prentice is the Engineering Supervisor for the Nonmetallic - Mechanical and Fatigue Depts. at IMR Test Labs. The groups are in charge of composite and polymer mechanical testing, as well as fatigue testing for all materials. Dennis has been with IMR for a little over 3 years. Prior to IMR, he worked at SEPAC, Inc as a Sales Engineer for custom manufactured electro-magnetic clutches and brakes. Dennis received a BS and ME in Mechanical Engineering from Rochester Institute of Technology. He is a voting member of the ASTM D 30 committee and is currently working towards his PE.

MEETING DETAILS

Place: Bridgewater Manor, Bridgewater, NJ; (908) 658-3000

Time: 5:45 – 8:30

Cost: \$15.00 Adv Registration; \$20.00 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

February 2016

Society for the Advancement of Material and Process Engineering

New Jersey Chapter



2015 – 2016 Meeting Schedule

September 10, 2015 – Garry Hoffman, 3HTi, LLC.

October 1, 2015 – Louis Pilato, Bio-Based Resins

October 26 - 29, 2015 – CAMX, Dallas TX, sponsored jointly by SAMPE and ACMA

November 5, 2015 – Joe Landolina, Suneris Technologies Inc.

December 3, 2015 – Aram Mekjian, Mektech Composites Inc.

February 4, 2016 – Dennis Prentice, Rob Demaree, IMR Test Labs

March 3, 2016 – Mary Shafer, Fabric Development

April 7, 2016 – Student Night + Nick Gianaris, Thermocore Inc.

May 5, 2016 – Delip Shah, A&C Catalysts, (tentative)

May 23 - 26, 2016 – SAMPE Long Beach, Long Beach CA

June 2, 2016 – TBA

July 7, 2016 – 33rd NJ SAMPE Golf Tournament, Picatinny Arsenal



NEWSLETTER

February 2016

Society for the Advancement of Material 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

PROGRAMS

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

LIAISON, SAMPE Technical Excellence Committee

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



NEWSLETTER

February 2016

Society for the Advancement of Material 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 – 2016 Borys F. 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

February 2016

Society for the Advancement of Material 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

Curtiss-Wright EPD

Russell Shaffer
1185 Feather Way
Bethlehem, PA 18015
908-235-8767
rshaffer@curtisswright.com

Gentex Corporation

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

Daicel USA Inc.

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

Evonik Corporation

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

IMR Test Labs

Bill DeLaurier
131 Woodsedge DR
Lansing, NY 14882
607-533-7000
sales@imrtest.com

Fabric Development Inc.

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

A&C Catalysts Inc

Abe Goldstein
1600 W Blancke St
Linden NJ 07036
908-474-9393
agoldstein@ac-catalysts.com
www.ac-catalysts.com

Coast Line International

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

Composite Prototyping Center

Leonard Poveromo
121 Express Street
Plainview NY 11803
631-875-2200
lpoveromo@compositepro.org
www.compositepro.org



NEWSLETTER

February 2016

Society for the Advancement of Material and Process Engineering

New Jersey Chapter



Chapter Sponsors (continued)

Lonza Inc.

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

3M Co.

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



NEWSLETTER

February 2016

Society for the Advancement of Material and Process Engineering

New Jersey Chapter



Sponsor of the Month Lonza Inc.

Lonza is a leading life science company based in Basel, Switzerland. However, a fully backward-integrated chemical network enables Lonza to supply key resin matrix components to aerospace, electronics, and other markets requiring advanced materials. Lonza's High Performance Materials business group has supported and enjoyed being a member of NJ SAMPE for several years.

The High Performance Materials group is the world's leading supplier of Cyanate Ester resins, under the trade name PRIMASET™. Cyanate esters are thermosetting resins with glass transition temperatures up to 400° C and excellent dielectric and mechanical properties, with the additional advantage of epoxy-like processing. The group also supplies LONZACURE™ Aromatic Diamines, used as curing agents for high temperature epoxy systems, as well as polyurethane chain extenders. LONZACURE™ typically has more favorable toxicity and handling profiles compared to many materials.

Pyromellitic Dianhydride (PMDA) is sold as a monomer in heat resistant polyimide films and coatings, as a curing agent for epoxy resins, and as a chain extender in polyesters.

Finally LONZAMON™ acrylic monomers are sold as crosslinkers and adhesion promoters in waterborne coatings, adhesives, sealants, and dental applications. Lonza's High Performance Materials group works in close collaboration with Novoset LLC (Peapack, NJ) and Cyalume Specialty Products (Bound Brook, NJ). This collaboration was formed to develop and market new and improved product solutions for high-end composite applications.

For more information go to:
www.lonza.com
www.high-performance-materials.com

For information,
please contact:

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

Lonza

High Performance Materials

