

Polymer Valley NEWS

The Newsletter of the Akron Section of the Society of Plastics Engineers
Our 55th Year of Education and Service to the Plastics Industry

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Costs, Schedules, Reservations

Member and/or guest	\$25.00
Retired	\$20.00
Student	\$5.00

Social / Networking	5:30 p.m.
Cash bar	
Dinner	6:00 p.m.
Program to follow	

Reservations must be in by noon on Friday, Sept. 6 and can be made to Bob Wegelin at robert.wegelin@att.net or 330-414-1498

Coming Up:

➤ Next meeting –
October 14, 2013

Technical Meeting

Monday, September 9, 2013
5:30 p.m.

Martin University Center

Center Ballroom

105 Fir Hill Street

East Side of University of Akron Campus

Technical Development and Commercialization of Three Bio-Materials

*By Roger Avakian, Dr. Jason Zhu
and Dr. Steve Horton*
PolyOne

PolyOne

Please join us for our first meeting of the season.

Roger will discuss latest developments in bio-plastics derived from renewable and sustainable sources other than oil.

See page 2 for abstract and
Mr. Avakian's biography

Sept, 2013, Page 1



Technical Development and Commercialization of Three Bio-Materials

Roger Avakian, Dr. Jason Zhu, Dr. Steve Horton

33587 Walker Road, Avon Lake, OH 44012, USA

Ph: 440-930-1236, F: 440-930-1644, roger.avakian@polyone.com

In recent years, there has been increased attention to polymers and additives that are derived from renewable resources. Such materials have much better Life Cycle Analysis ratings to their lower “green house gas” generation, renewable nature and more recently the utilization of waste bio-mass.

This presentation covers the development and commercialization of three bio-materials: a non-flame retarded bio-polymer blend, a non-halogen flame retarded bio-polymer blend and a bio-derived plasticizer for PVC.

The bio-polymer blends are based on PLA and contain at least 30 weight percent PLA. The effect of increasing bio-content on these blends is discussed as well as the challenges that a flame retardancy requirement presents.

The development of a bio-derived plasticizer for PVC required both material science and process technology to insure the consistency and quality of the final product due to natural variations. These will be discussed.

ROGER W AVAKIAN

Vice President, Scientific Development - PolyOne

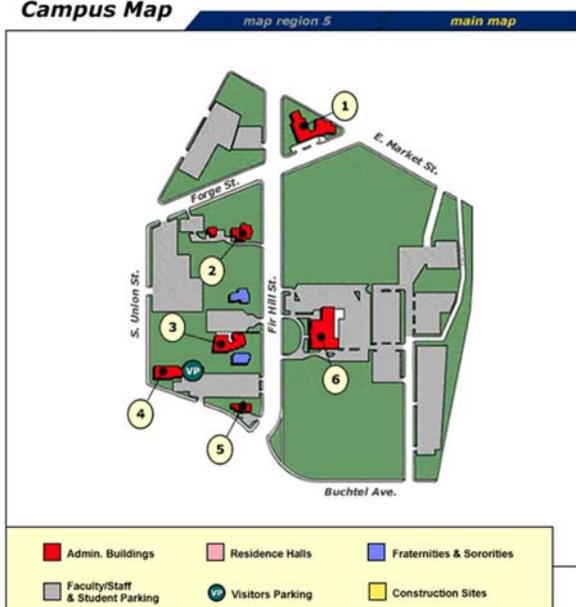
Roger W Avakian, is currently Vice President, Scientific Development for PolyOne Corporation and is responsible for developing strategic technology “breakthroughs”. He has been with PolyOne since January 2000.

Prior to joining PolyOne, Roger had held several technical and technical management positions during his 20 years at GE, including an assignment in Europe.

Roger is a Master Black Belt in the Six Sigma quality methodology and has over 60 issued U.S. patents, and several pending U.S. patent applications. He received his Bachelor’s degree in Chemistry from the University of California at San Diego.



Campus Map



Map to Martin University Center 105 Fir Hill Street Akron, Ohio

Directions: Exit Ohio 8 at Buchtel Street (between Central Interchange with I-76/ I-77 and the high bridge). Go West one block to Fir Hill and turn North. Parking lot is on the north side of Martin University Center.

If the ramp from 76/77 to Route 8 is still closed, traffic from the West should use the Route 59 detour, exit at Cascade Plaza and come up Mill Street past the APTC to Forge and then Fir Hill.

You may zoom in



Advertiser Index

Akron Polymer Training Center	5
David Industrial Sales	6
Dover Chemical	6
Polysort	4

Picture your ad here

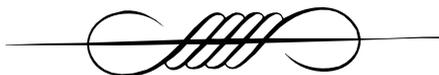
And also on our updated web site:
www.akronspe.org

Technical Assistance Initiated On Akron SPE Web Site

Do you have a technical question on plastics, polymers, rubbers, etc. Our web site now has a place where you can detail your question and the Akron SPE Board will use their collective knowledge and resources to answer your questions. Check it out at <http://akronspe.org/contact/>. If you post a question we will post it in the following newsletter along with the answer.

Akron Section SPE Past Presidents

*55 years of
excellence*



1959-1960	Donald F. Siddall	1986-1987	Harry J. Barth
1960-1961	Milan Krajcik	1987-1988	Judith A. Fallon
1961-1962	Foster J. Young	1988-1989	William E. Tosko
1962-1963	Dickson L. Stoker, III	1989-1990	Robert C. Wegelin
1963-1964	Edward L. Hillier	1990-1991	Geraldine R. Stromquist
1964-1965	John R. Russell	1991-1992	Spencer Kreiser
1965-1966	John R. Russell	1992-1993	Robert C. Wegelin
1966-1967	Clyde H. Jones	1993-1994	Anthony F. Dean, Jr.
1967-1968	Alan Corry, Jr.	1994-1995	Wayne Decamp
1968-1969	Bernard M. Saffian	1995-1996	Melanie Stewart
1969-1970	Harold R. Schick	1996-1997	Kevin Hershfield
1970-1971	Robert G. Hills	1997-1998	David Schultz
1971-1972	John J. Satterfield	1998-1999	John Raab
1972-1973	Alexis M. Gross	1999-2000	Gary Taylor
1973-1974	Francis J. Maurer	2000-2001	Kevin Malpass
1974-1975	Leverett A. Anderson, Jr.	2001-2002	Kenneth L. Sharp
1975-1976	Robert M. Hershey	2002-2003	Joseph E. Pfeiffer
1976-1977	Richard L. Fleshman	2003-2004	Robert C. Wegelin
1977-1978	David Curtis	2004-2005	Joseph Mattingly
1978-1979	John A. Zelek, Jr.	2005-2006	Lloyd A. Goettler
1979-1980	Gerald W. Whitnable	2006-2007	John Woodside
1980-1981	Kathleen N. Bechter	2007-2008	Vivian Malpass
1981-1982	Victor E. Giuffrida	2008-2009	Joseph Mattingly
1982-1983	James Steiner	2009-2010	David A. Katz
1983-1984	Robert G. Hills	2010-2011	Lloyd A. Goettler
1984-1985	Anthony F. Dean, Jr.	2011-2012	David Schultz
1985-1986	Gene Buser	2012-2013	Kevin Malpass



Membership Report

As of August 1, we have 321 members. Twenty-five members have joined since Jan 1. The current membership reports do not have expiration dates so we cannot tell how many members have left this year. We show that in February we had 338 members so we can assume 42 members lost since Dec 31, 2012.

Membership chair, Robert Weiler

Please join in...

We are in need of a few new members for the Education Foundation.

The Akron Section is in need of New Board Member as the new year begins.

Please consider becoming a Board Member to help support your Section.

Contact anyone currently on the board (see page 9)

if you are interested. Thank You!

If prospects can't find your website on Google, will it generate leads?

Polysort -- serving plastics companies for 18 years



- **Search Engine Optimization**
- **Website design**
- **Internet marketing**

Contact us today for a FREE web site audit.

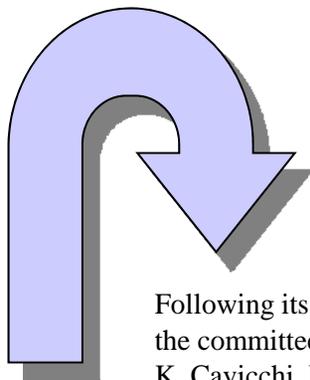
Tel. 330.665.5918 ext. 2104

E-mail John Inama at johni@polysort.com


POLYSORT
The power of many.



New Directions Initiative

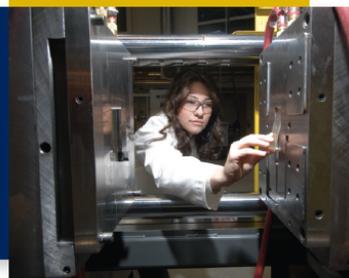


An initiative has been undertaken to develop a set of new directions for the SPE Akron Section with the objectives of revitalization and operational efficiency. Elements to be addressed include technical program focus, section functioning, member involvements, inter-society interactions, meeting venues and liaisons with our local educational institutions.

Following its authorization by the Board of Directors at their June 2009 meeting, the committee comprising R. Sadeghi, S. Jana, V. Malpass, K. Malpass, K. Cavicchi, M. Holtman and L. Goettler (chair) has met to generate program concepts for the upcoming year around developing technologies of local interest that involve both R&D and commercialization and are of general societal interest. Thrust areas have been identified as energy, biomaterials, medical/health applications of polymers and environmental concerns. Some program subjects being considered are medical plastic applications, e.g. implants, fuel cells, applications of nanofibers, biopolymers, alternate energy sources, water purification e.g. via desalination, photovoltaics, flexible displays, and the general process of technology transfer from lab to marketplace.

Please input your preferences and other ideas to us via the SPE website to insure that our programs are meeting your needs and interests.

The Akron Polymer Training Center (APTC)
at The University of Akron provides short courses
for the plastics, rubber, medical, corrosion,
and adhesives and coatings industries.



APTC plastics courses include:

- Understanding Plastic Material Properties in Analyzing and Preventing Product Failures
- Making Properties and Profits: Twin Screw Extrusion Seminar
- Complete Injection Molding
- Polymer Compounding, Formulating and Testing of Plastics, Rubber, Adhesives and Coatings
- Rubber and Plastics Failure Analysis – Physical and Chemical Analysis Techniques
- Plastic Material Selection and Testing
- Plastic Part Failure Analysis
- Chemistry and Technology of Polymeric Materials used in Medical Devices
- Validating Medical Molding Processes and Parts
- Color Theory and Applications

Visit uakron.edu/aptc for a complete list of APTC courses.

The
University
of Akron

Customized training programs also are available. Contact APTC at **330-972-8661** or tahir@uakron.edu.



Akron Section Board of Directors

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Lockheed Martin 330-796-9899 F
 President/Chair daniel.h.jones@lmco.com

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Tek-Mark International 330-342-1134 F
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 Councilor, Conference,
 Technical Program, TopCon 2014

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 Past-President kevin.malpass@diebold.com

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Harwick Standard Dist. Corp. 330-798-9328 F
 Prior Past-President/Secretary schultzd@harwickstandard.com

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 Director, Student Chapter SPE Liaison

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U Akron Polymer Engineering 330-258-2339 F
 Director, Student Chapter Advisor, kac58@uakron.edu
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 Director, Education Foundation

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Retired – Director, Public Interest, francis@neo.rr.com
 Website Manager, Newsletter Editor/Advertising

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 Director, Membership

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Goodyear Tire & Rubber Co. 330-896-7379 F
 Director joe@mattingly.us

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U Akron Polymer Engineering 330-258-2339 F
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 Director

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GOJO Industries 330-255-6114 F
 Director PelfreyK@GOJO.com

Mike Martin 330-786-3000 T
Ferriot, Inc. 330-786-3001 F
 Director Mmartin@ferriot.com

PolymerOhio Internships

The Third Frontier Internship Program links Ohio students with rewarding internship opportunities that provide hands-on experience within Ohio's private-sector business community. The goal is to build a young talented workforce for the future and assist students in gaining valuable work experience that can lead to permanent full-time employment in Ohio after graduation.

The program will reimburse 50% of each intern's wage up to \$3000 for a 12 month period.

Following an intern's graduation, your firm will have the opportunity to offer full-time employment to an individual who is well prepared for a future career with your organization.

Internships may be full-time or part-time at anytime during the year.

The Internship Program is looking for participating businesses that can provide one or more of the following types of internships:

Advanced manufacturing
Information technology

Advanced materials
Instruments, controls and electronics

Bioscience
Power and propulsion

For more information please go to www.polymerohio.org. Roll your mouse over to "careers" in the top menu line to reach the link to the Polymer Ohio Internship Program page. If you are a company or a student, follow the procedures to register at www.ohio3fip.com.

For more information or assistance, call Rich Markham at 614-477-1133 or write to rmarkham@polymerohio.org.



Akron Section Society of Plastics Engineers Educational Foundation



1-13

The Akron Society of Plastics Engineers Educational Foundation operates exclusively for the benefit of and to carry out the purposes of the Akron Section of the Society of Plastics Engineers, which is to promote scientific and engineering knowledge relating to plastics by making educational scholarship grants to deserving students in the field of plastics engineering and related subjects. The Organization is supported primarily by contributions from the Akron Society of Plastics Engineers, the Society's individual members and corporations like yours affiliated with the polymer industry.

Since the inception in 1988, the Akron Society of Plastics Engineers Educational Foundation has grown to its current position through the hard work of many volunteers and the generosity of the local business community. Over the twenty three years that the foundation has been in existence, it has provided scholarships to over 232 young men and women totaling in excess of \$295,000 to assist them in furthering their careers in the polymer industry.

Our goal is to continue to grow the assets of the Foundation in order to increase the number of scholarships awarded, as well as the size of the awards, and to do so in perpetuity. In doing this, we hope to be able to contribute to the supply of well-trained individuals to support the growth of the polymer industry in the Northeast Ohio area today and well into the future.

When the Foundation began its fund raising activities in 1988, we offered those companies who contributed \$30,000 a scholarship in their name. To date we have five named scholarships, Newell/Rubbermaid, Goodyear, Ken Sharp Memorial and Jim Steiner Memorial scholarships. We are asking your company to help with the growth of well-trained individuals in the local polymer industry. Please print this page, fill out the information and mail it to Bob Wegelin, 13206 Kaufman Ave. NW Hartville, OH 44632.

Akron SPE Scholarship Donation Commitment

- \$30,000 lump sum. _____
- \$10,000/yr. next 3yrs. _____
- \$5,000/yr. next 6 yrs. _____
- Other: _____

Company name: _____

Contact person: _____

Ph. # or email: _____

Our named scholarship donors are recognized at the annual Awards Night of the Akron Society of Plastics Engineers. We invite you to present your tax deductible donation at our Awards Night, which is scheduled on May 11, 2013.

We are looking forward to your support of this very worthwhile cause by your fine company. Please contact me at (330) 414-1498 with any questions. Thank you for your consideration.

Sincerely,

Bob Wegelin, Foundation Chair

Akron Section Society of Plastics Engineers, Educational Foundation





Who Can Help You Society of Plastics Engineers

13 Church Hill Road, Newtown, CT 06470

Phone: +1 203-775-0471

www.4spe.org

Academic Outreach	Gail Bristol	+1 203-740-5447	grbristol@4spe.org
Annual Awards	Sarah Sullinger	+1 203-740-5422	ssullinger@4spe.org
ANTEC Booth Sales	Pete Dicks	+1 770-576-2628	pete@naylor.com
ANTEC Conference Management	Barbara Spain	+1 203-740-5418	bspain@4spe.org
ANTEC paper submission	Barbara Spain	+1 203-740-5418	bspain@4spe.org
Book Orders	Bonnie Kaczowski	+1 203-740-5428	bakaczowski@4spe.org
Change of address	Customer Relations	+1 203-775-0471	customerrelations@4spe.org
Communications Excellence Award	Sarah Sullinger	+1 203-740-5422	ssullinger@4spe.org
Conference Registration	Sue Wojnicki	+1 203-740-5420	swojnicki@4spe.org
Conference Sponsorship	Sue Wojnicki	+1 203-740-5420	swojnicki@4spe.org
Corporate Outreach	Gail Bristol	+1 203-740-5477	grbristol@4spe.org
Dues billing & payments	Customer Relations	+1 203-775-0471	customerrelations@4spe.org
Employment Advertising		+1 888-491-8833 Ext. 1063	customerservice+64639@support.boxwoodtech.com
Fellow & Honored Service Nominations	Sarah Sullinger	+1 203-740-5422	ssullinger@4spe.org
Governance Liaison	Sarah Sullinger	+1 203-740-5422	ssullinger@4spe.org
Marketing/Membership Director	Tom Conklin	+1 203-740-5453	tconklin@4spe.org
Membership Processing/Questions	Customer Relations	+1 203-775-0471	membership@4spe.org
Membership Programs/Retention	Sue Wojnicki	+1 203-740-5420	swojnicki@4spe.org
Pinnacle Award	Sarah Sullinger	+1 203-740-5422	ssullinger@4spe.org
<i>Plastics Engineering</i> magazine advertising	Roland Espinosa	+1 908-748-6819	respinosa@wiley.com
Sections, Divisions & Special Interest Group Administration	Sarah Sullinger	+1 203-740-5422	ssullinger@4spe.org

Manager of Communications	Catherine Vinci	+1 203-740-5472	cvinci@4spe.org
SPE Foundation / Scholarships & Grants	Gail Bristol	+1 203-740-5447	grbristol@4spe.org
SPE Industry Resource Guide	Gail Bristol	+1 203-740-5447	grbristol@4spe.org
Student Chapters	Sarah Sullinger	+1 203-740-5422	ssullinger@4spe.org
Submission of editorial material for <i>Plastics Engineering</i> ; questions regarding SPE journals	Gail Bristol	+1 203-740-5447	grbristol@4spe.org
Topical Conference Planning	Sue Wojnicki	+1 203-740-5420	swojnicki@4spe.org
Topical Conference Registration	Bonnie Kaczowski	+1 203-740-5428	bakaczowski@4spe.org
Webinars (non-registration)	Barbara Spain	+1 203-740-5418	bspain@4spe.org
Webinar registration	Bonnie Kaczowski	+1 203-740-5428	membership@4spe.org
Website Administration	Pedro Matos	+1 203-740-5438	pmatatos@4spe.org

SPE MEMBER BENEFITS GUIDE



FREE TO MEMBERS

	BENEFIT	DESCRIPTION	WEBSITE LINK
NETWORKING	Business Networking Resources	Connect to industry experts	www.4spe.org/cc
	Local Section Affiliation	Network with members locally in over 75 countries	www.4spe.org/communities/sections
	Online Membership Directory	Unlimited access provides the link to fellow members	www.4spe.org/membercenter
	Technical Affiliation	24 Divisions represent major industry specialties	www.4spe.org/communities/divisions
MEDIA	Newsletters	News & events about specific local & technical affiliations	www.4spe.org/communities/newsletters
	<i>Plastics Engineering (PE)</i>	The official monthly publication of SPE	www.4spe.org/pub
	SPE Online	Your 24/7 source for Society information	www.4spe.org
	Tech Focus	Monthly electronic newsletter offering society & industry news	www.4spe.org/membercenter
TECHNICAL	Online Technical Library	Searchable database of technical articles & conference papers	www.4spe.org/membercenter
	Message Forums	Online question & answer forum	www.askpip.com
	Special Interest Groups	Emerging areas not currently covered by technical Divisions	www.4spe.org/communities/divisions/#sig
	SPE Journals	Read abstracts from our three technical journals	www.4spe.org/pub/journal
CAREER	American Management Association	Through a partner alliance, access AMA's educational resources	www.4spe.org/membercenter
	Awards	Outstanding contributions recognized	www.4spe.org/awards
	Leadership Development	The opportunity to improve professionally & personally	www.4spe.org/communities/leadership
	Online Career Development	Career enrichment, job openings & resume database	www.4spe.org/membercenter
	Professional Recognition	Distinguished grades of membership recognize accomplishments	www.4spe.org/membercenter
	Scholarships & Grants	Awarded by The SPE Foundation	www.4spe.org/foundation
	Student Benefits	Over 100 Student Chapters in nine countries	www.4spe.org/membercenter
	Unemployment Services	Benefits for the unemployed member	www.4spe.org/membercenter

SAVINGS TO MEMBERS

	BENEFIT	DESCRIPTION	WEBSITE LINK
TRAINING	ANTEC	Largest annual technical conference in the industry	www.antec.ws
	Career Coaching	For-a-fee services for career enhancement	www.4careersolutions.org
	e-Learning Center	Online self-paced courses, live & archived presentations	www.4spe.org/elearning
	In-plant Training	Seminar instruction at member's company	www.4spe.org/training/seminars
	Seminars	Expert instruction on current plastics topics	www.4spe.org/training/seminars
	Technical Journals	Subscribe to peer-reviewed articles. Available online and in print	www.4spe.org/pub
	Topical Conferences	Targeted at specific technical & management disciplines	www.4spe.org/conf
	Training Products	Developed by SPE & other leading providers. Some Spanish titles	www.4spe.org/training/products
	OTHER	Career Transition Services	Outplacement program offered to member's company
Group Health Insurance		Health, disability & life insurance at attractive group rates	www.4spe.org/membercenter
Online Job Posting		A source for companies to find qualified staff	www.4careersolutions.org
SPE BookStore		Discounts on 250+ reference books & training products	www.4spe.org/training/products
SPE/MBNA Credit Card		SPE Platinum Plus Mastercard® (US & Canada only)	www.4spe.org/membercenter

WEBSITE LINKS SUBJECT TO CHANGE - CHECK WWW.4SPE.ORG FOR FULL BENEFITS

WHY JOIN ?

It has never been more important to be a member of your professional society than now, in the current climate of change and volatility in the plastics industry. Now, more than ever, the information you access and the personal networks you create can and will directly impact your future and your career.

Active membership in SPE:

- **keeps you current**
- **keeps you informed**
- **keeps you connected**

The question really isn't "why join?" but

WHY NOT?



Akron Section Society of Plastics Engineers
Tony Dean, Advertising Manager
330-929-9916

Website, E-Blast & Newsletter Advertising

Insertion Order 2013-14

Polymer Valley News: Akron Section SPE Newsletter
Delivered via email, stored at <http://www.akronspe.org/newsletter.htm>

Please check ad size wanted. One column is 3-7/8" wide.

This is the 55th year of the Akron SPE Section and rates are for entire season, September 2013 – Summer 2014. **Payable in Advance. Please let me know if you need an invoice.**

Ad format must be electronic (but we can scan your original artwork). File size should be limited based on the size of the ad ordered. Oversized ads will be charged an additional fee. Acceptable formats are .bmp, .pcx, .jpg, .tif, .gif, or MS PowerPoint or Word (if you have any issues with format, please email us and we can provide assistance). **Color is Free! Color helps your ad stand out!** All ads included in newsletter, email blast and web site.

Email artwork and this Insertion Order (completed) as an attachment to francis@neo.rr.com

If you don't include your email address, we have no way of sending you each issue!

(please X)	Ad Size	Dimensions	Price for year
	Business Card	One column by 2" high	\$100
	Double	One column, 2 to 4" high	\$150
	Triple	One column, 4 to 6" high	\$200
	Half Page	One column, 10" high	\$250
	Half Page	Page width (7.5"), 5" high	\$250
	Hotlink to company website	N/A	No Charge

The cost on a per issue basis will be calculated by dividing the "Year" price by 10

Contact Person

Billing Information:

Company: _____
Name: _____
Address: _____

Phone #: _____
Fax #: _____
Email address: _____

Mail checks, payable to AKRON SECTION SPE, to:
Akron Section SPE
c/o Tony Dean
Akron SPE
250 S. Forge Street
Akron, OH 44325-0301



SOCIETY OF PLASTICS ENGINEERS MEMBERSHIP APPLICATION

13 Church Hill Road, Newtown, CT. 06470 USA
Tel: +1 203-775-0471 Fax: +1 203-775-8490
membership@4spe.org www.4spe.org

European Member Bureau
Tel: +44 7500 829007
speurope@4spe.org www.speurope.org

Applicant Information: (please print)

My Primary Address is home _____ or business _____ (check one)

Name _____
First MI Last

Phone Number _____ Home ___ Work ___ Cell ___

Organization Name _____

Job Title _____

Address _____

Email(Required Field) _____

Address _____

Alternate Email _____

Address _____

City _____ State _____

Date of Birth _____ Graduation Date* _____

Zip/Postal Code _____ Country _____

Gender: Male ___ Female ___ *Required for Student Membership

Membership Types (please check one)

____ **Student \$31** ____ **Young Professional \$99** ____ **Professional \$144**(includes \$15 new member initiation fee)
Choose up to 2 Member Groups on the back of this application.

____ **Professional +2 Additional Member Groups \$164** Choose up to 4 Additional Member Groups on the back of this application.

____ **Professional +4 Additional Member Groups \$184** Choose up to 6 Additional Member Groups on the back of this application.

Payment Information: PAYMENT MUST ACCOMPANY APPLICATION-NO PURCHASE ORDERS ACCEPTED

Amount _____ Check Number _____ Cash _____

Credit Card Information (Check One) American Express _____ Visa _____ MasterCard _____

Credit Card Number _____ Exp. Date _____ Security Code _____

Name On Credit Card _____ Amount _____

By signing below I agree to be governed by the Bylaws of the Society and to promote the objectives of the Society. I certify that the statements made in the application are correct and I authorize SPE and its affiliates to use my phone, fax, address and email to contact me.

Signature _____ Date _____

Recommended by _____ ID# _____

The SPE Online Membership Directory is included with membership. Your information will be automatically included.

- ____ Exclude my email from the Online Membership Directory.
- ____ Exclude all my information from the Online Membership Directory.
- ____ Exclude my address from 3rd party mailings.

Dues include a 1year subscription to *Plastics Engineering* magazine-\$38.00 value (non-deductible). SPE membership is valid for twelve months from the date your membership is processed.

Member Groups

Technical Area of Interests(Divisions)

A Technical Area of Interest gives you access to up-to-the-minute, specialized, technical information and an international community of colleagues in your area of interest. It enhances your membership by providing more targeted, practical advice, from proven experts and professionals currently working in your field.

Please circle choice(s) below:

None

Additives & Colors Europe - D45

Automotive - D31

Blow Molding - D30

Color & Appearance - D21

Composites - D39

Decorating & Assembly - D34

Electrical & Electronic - D24

Engineering Properties & Structure - D26

European Medical Polymers - D46

Extrusion - D22

Flexible Packaging - D44

Injection Molding - D23

Medical Plastics Technical Area of Interest - D36

Mold Making & Mold Design - D35

Plastics Environmental - D40

Polymer Analysis - D33

Polymer Modifiers & Additives - D38

Product Design & Development - D41

Rotational Molding - D42

Thermoforming - D25

European Thermoforming - D43

Thermoplastic Materials & Foams - D29

Thermoset - D28

Vinyl Plastics - D27

Geographic Locations(Sections)

A Geographic Location connects you to your local plastics colleagues and your local industry. Please circle choice(s) below:

None

Alabama-Georgia-Southern

Arkansas

Australia - New Zealand

Benelux

Brazil

California - Golden Gate

California - Southern California

Caribbean

Carolinas

Central Europe

Colorado - Rocky Mountain

Connecticut

Eastern New England

Florida - Central Florida

Florida - South Florida

France

Hong Kong

Illinois-Chicago

India

Indiana-Central Indiana

Iowa

Israel

Italy

Japan

Kansas City

Korea

Louisiana-Gulf South Central

Maryland-Baltimore-Washington

Mass-New Hampshire-Pioneer Valley

Mexico-Centro

Michiana

Michigan-Detroit

Michigan-Mid Michigan

Michigan-Western Michigan

Middle East

Mississippi

Missouri

Nebraska

New Jersey - Palisades-New Jersey

New York

New York-Binghamton-Scranton

New York-Rochester

New York Mid-Hudson

North Carolina-Piedmont Coastal

Ohio-Akron

Ohio-Cleveland

Ohio-Miami Valley

Ohio-Toledo

Ohio-Firelands

Oklahoma

Ontario

Oregon-Columbia River

Pennsylvania-Lehigh Valley

Pennsylvania-Northwestern Pennsylvania

Pennsylvania-Philadelphia

Pennsylvania-Pittsburgh

Pennsylvania-Susquehanna

Portugal

Quebec

Southeastern New England

Spain

Taiwan

Tennessee-Smoky Mountain

Tennessee-Tennessee Valley

Texas-Central Texas

Texas-Lower Rio Grande Valley

Texas-North Texas

Texas-South Texas

Turkey

United Kingdom & Ireland

Upper Midwest

Utah-Great Salt Lake

Virginia

Washington-Pacific Northwest

West Virginia Southeastern Ohio

Western New England

Wisconsin-Milwaukee

Special Interest Groups(SIGs)

Special Interest Groups are where like-minded Plastics professionals come together to explore the emerging science, technologies and practices that will shape the plastics industry. There is no charge for membership. Choose as many as you would like. Please circle choice(s) below:

Advanced Energy Storage – SIG 024

Alloys and Blends – SIG 010

Applied Rheology – SIG 013

Bioplastics – SIG 028

Composites Europe – SIG 026

Extrusion Europe – SIG 025

Failure Analysis and Prevention – SIG 002

Joining of Plastics and Composites – SIG 012

Marketing & Management Division – SIG 029

Nano/Micro Molding – SIG 023

Non-Halogen Flame Retardant Tech-SIG 030

Plastic Pipe and Fittings – SIG 021

Plastics Educators – SIG 018

Plastics in Building and Construction – SIG 027

Process Monitoring and Control – SIG 016

Quality and Continuous Improvement – SIG 005

Radiation Processing of Polymers – SIG 019

Rapid Design, Engineering and Mold Making – SIG 020

Thermoplastic Elastomers - SIG 006