



A Subdivision of the Rubber Division of the American Chemical Society

# Spring 2015

[www.ohiorubbergroup.org](http://www.ohiorubbergroup.org)

PO Box 341, Bath, OH 44210

## 2015 Events OHIO RUBBER GROUP

[www.ohiorubbergroup.org](http://www.ohiorubbergroup.org)

***Be sure to renew your membership for 2015***

Spring Technical Meeting  
Tuesday, April 21, 2015  
Twinsburg Hilton Inn

Golf Outing  
Tuesday, June 16, 2015  
Yankee Run, Warren

**FORMS IN THIS ISSUE  
SIGN UP NOW**

Golf Outing  
Monday, August 24, 2015  
Portage CC, Akron

Fall Technical Meeting  
Tuesday, September 29, 2015  
Twinsburg Hilton Inn

### **RUBBER DIVISION**

[www.rubber.org](http://www.rubber.org)

187th Technical Meeting and  
Educational Symposium  
April 27-30, 2015  
Greenville, SC

188th Technical Meeting  
International Elastomer  
Conference  
October 12-15, 2015  
Cleveland, OH

### **CLEVELAND CHEMICAL ASSOCIATION**

[www.clevelandchemicalassociation.com](http://www.clevelandchemicalassociation.com)

Monthly Luncheon Meetings

## ***A message from Sean Djuricic, 2015 Chair***

Hello Ohio Rubber Group members,

The lasting effects of winter have come and hopefully gone and now it is time to look forward to the refreshed awakening that Spring in Ohio brings! It also means that our April 21<sup>st</sup> Spring Technical Meeting is just around the corner. I am excited to announce our meeting will be held again at the Hilton Garden Inn in Twinsburg, Ohio.

Thank you to you and all of our Ohio Rubber Group members who were able to join us at the Winter Technical Meeting. The fantastic presentations at our previous meeting by Stephen O'Rourke of Polymer Additives, Julie Orlando of Nanotronics Imaging Inc. and our Ph.D. candidate speaker Danielle Grolman were well received and we had a great turn out! It is always great to see an increase in attendance and we hope that this continues for upcoming meetings. If you missed out on being able to join us in January, be sure to make arrangements for Tuesday, April 21<sup>st</sup>. Tina Darnell and Paulo Meneghetti have worked hard in preparing the speaker presentation agenda for our members and I believe everyone will find something to peak their interest regarding industry advancements and technical knowledge. The technical agenda can be reviewed further in the newsletter and if you have updated your membership now is a great time to enjoy all of the benefits through the rest of the year (Membership is still only \$25.00!!).

Our Scholarship Selection Committee is reviewing applications for the Ohio Rubber Group scholarships and I am happy to say we were able to submit our selection to the Rubber Division for the Rubber Technology award.

Speaking of scholarships, one of the best ways to donate to the ORG Scholarship fund and help future leaders of the Rubber Industry is by participating in our golf outings and raffle donations or sponsorships. The next golf outing will be held at Yankee Run on June 16<sup>th</sup> with a 9:30AM Shotgun Start with a tasty BBQ dinner provided once again by Tom Nunley. This is always a great start to the ORG golf season and please contact Mary Puskas if you would like to further support the ORG as a sponsor for any future meetings or tournaments.

We are always interested in hearing how we can improve meetings, technical presentations and your overall experience as a member of the Ohio Rubber Group. Please do not hesitate to contact me or any member of the ORG committee and we will be happy to hear your thoughts. After all without you, we wouldn't be able to achieve the successful events we strive for!

Be sure to read the rest of the newsletter for all of the most important event dates, Spring Technical Meeting agenda, Rubber Division course on 4/21, June golf sign-up sheets and maybe even your photo! See you in April!!

Sincerely,  
Sean Djuricic  
2015 ORG Chairman



**Photos of ORG events will be posted on  
our website: [www.ohiorubbergroup.org](http://www.ohiorubbergroup.org)**

## 2015 Directors

*Chair - Sean Djuricic*  
ARDL 330-794-6600  
[seand@ardl.com](mailto:seand@ardl.com)

*Vice-Chair – Jim Lipinski*  
Harwick Standard Dist. 330-798-6808  
[lipinskij@harwickstandard.com](mailto:lipinskij@harwickstandard.com)

*Treasurer- Tim Samples*  
Polymeric, Inc. 330-609-2724  
[tim@polymeric.com](mailto:tim@polymeric.com)

*Secretary – Peter Glasser*  
HF Mixing Group 330-324-3842  
[pglasser@farrel.com](mailto:pglasser@farrel.com)

*Councilor – Ernie Puskas*  
Littlern Corp. 330-848-8847  
[epuskas@littlern.com](mailto:epuskas@littlern.com)

*Alt. Councilor– Denise Kotz*  
DuPont Performance Elastomers  
330-929-6926 [denise.kotz@dupont.com](mailto:denise.kotz@dupont.com)

*Area Director –Andrew L. Tisler*  
Omnova Solutions, Inc.  
440-318-488  
[andrew.tisler@omnova.com](mailto:andrew.tisler@omnova.com)

*Alt. Area Director Jim Lipinski*  
Harwick Standard Dist. 330-798-6808  
[lipinskij@harwickstandard.com](mailto:lipinskij@harwickstandard.com)

## 2015 Committee Chairs

*Program – Paulo Meneghetti*  
Momentive 440-953-7837  
[paulo.meneghetti@momentive.com](mailto:paulo.meneghetti@momentive.com)

*Program – Tina Darnell*  
Flow Polymers 312-315-5730  
[tdarnell@flowpolymers.com](mailto:tdarnell@flowpolymers.com)

*Membership - Jim Lipinski*  
Harwick Standard Dist. 330-798-6808  
[lipinskij@harwickstandard.com](mailto:lipinskij@harwickstandard.com)

*Scholarship/Education – Joel Neilsen*  
Sid Richardson Carbon & Energy Co.  
330-666-2777 [jgneilsen@sidrich.com](mailto:jgneilsen@sidrich.com)

*June Golf Outing – Doug Ruch*  
Nanotronics Imaging, Inc.  
330-510-0107  
[doug@nanotronicsimaging.com](mailto:doug@nanotronicsimaging.com)

*August Golf Outing –  
Greg Sibley and Kevin Geron*  
Intertex 330-665-5533  
[greg@intertexworld.com](mailto:greg@intertexworld.com)  
[kevin@intertexworld.com](mailto:kevin@intertexworld.com)

*Publicity – Thomas McGee*  
419-289-6339 [ncem046@yahoo.com](mailto:ncem046@yahoo.com)

*Web Master – Denise Kotz*  
DuPont Performance Elastomers  
330-929-6926 [denise.kotz@dupont.com](mailto:denise.kotz@dupont.com)

*Historian/Raffle – Shelby Washko*  
330-273-5155  
[shelbywashko@frontier.com](mailto:shelbywashko@frontier.com)

*Newsletter/Rec.Secy –Mary Puskas*  
Ohio Rubber Group 330-283-0845  
[mpuskas@littlern.com](mailto:mpuskas@littlern.com)

## 2015 Hospitality Sponsors

Please consider a contribution to the 2015 Technical Meeting Social Hours. As a 2015 Hospitality Sponsor your company will be recognized in the newsletters, on the website and at the meetings (Spring 2014, Fall 2014 and Winter 2015).

The social hour is an important adjunct to the technical meetings and is possible only through the generosity of our Hospitality Sponsors. A yearly donation of \$250 is suggested; any amount is appreciated.

Please send to: Ohio Rubber Group, PO Box 341, Bath, Ohio 44210

## 2015 Hospitality Sponsors

(as of 4/20/15)

*Hallstar  
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ChemSpec, Ltd.  
ChemRep, Inc.  
Whitney Industrial Services, LLC.  
Struktol Co. of America  
Lord Corp.*

## RUBBER DIVISION EDUCATIONAL COURSES

Contact **Christie Robinson, MEd, Education and Publications Mgr.**  
[crobinson@rubber.org](mailto:crobinson@rubber.org) for more information.

### Selecting the Right Elastomer for Your Sealing Application

April 21; 2:00 p.m. - 4:00 p.m.; Hilton Garden Inn, Twinsburg, OH

\*Sponsored by the Ohio Rubber Group

We will review the different elastomers and how they compare to each other. We will look at chemical compatibility, thermal properties and mechanical properties of elastomers used in sealing applications. Also discussed will be how to specify elastomers for your application, service conditions to consider and 'cost vs value' in selecting an elastomer.

Instructor: William Stahl, Rainbow Mastermixing

CEUs: 0.2

Cost: \$79 member / \$99 non-member / \$20 student member

## Schedule

4:00 – Dinner Ticket/Membership Sales

4:30 – Technical Presentations (No Charge)

\*\*\*please turn off cell phones\*\*\*

6:00 – Social Hour

7:00 – Dinner (\$35 if reserved by 4/19/15)

# Ohio Rubber Group Spring Technical Meeting Tuesday, April 21, 2015

Hilton Garden Inn, 330-405-4488  
8971 Wilcox Drive, Twinsburg, Ohio

## Technical Presentations (no charge)

\*\*\*\*\*Please turn off cell phones during the presentations\*\*\*\*\*

### “AMINO ACIDS IN GUAYULE NATURAL RUBBER”

**Dr. Colleen McMahan, Research Chemist and Lead Scientist, USDA Agricultural Research Service**

*Natural rubber (NR) from Hevea brasiliensis (the Hevea rubber tree) is a critical agricultural material vital to United States industry, medicine, and defense, yet the country is dependent on NR imports to meet domestic needs. Parthenium argentatum (guayule), a woody desert shrub indigenous to the US, is now under development as a new agricultural crop in the semi-arid southwestern US. Guayule natural rubber (GNR) may be used to replace petroleum-based rubber, or in place of Hevea NR, but substitution must take into consideration differences in physical and chemical properties. In natural rubbers those properties can be strongly impacted by their non-rubber constituents, typically proteins and lipids, depending on the plant species and post-harvest processing. NR from Hevea typically contains high levels of proteins that contribute to cure acceleration, thermo-oxidative stability, and strain-induced crystallization (SIC). The presence of SIC has been attributed to outstanding properties which render Hevea NR uniquely suited for the most demanding rubber applications (eg aircraft tires). Importantly, proteins in Hevea undergo significant hydrolysis, releasing polypeptides and individual amino acids into latex and rubber compounds. The effects of amino acids on rubber are not well understood. Here, low protein guayule NR was blended with a series of amino acids varying in chemical structure to study the impact on physical and chemical properties.*

### “FROM WASTED CARBON TO SUSTAINABLE MATERIALS”

**Dr. Erich Grotewold, Director, Arabidopsis Biological Resource Center & Center for Applied Plant Sciences**

*A brief description of a new initiative that involves four universities in Ohio as part of an NSF Industry/University Cooperative Research Center to develop partnerships with industry and government to utilize wasted carbon (methane and carbon dioxide primarily) to make sustainable precursors for various materials, including rubber. I will briefly describe how new technological developments in chemical, biological and bio-inspired catalysis provide singular opportunities in carbon processing from one carbon to C3-6 molecules and complex polymers. The presentation will focus on how we envision significant research thrusts in this area in the four universities to be seamlessly integrated with the industry needs.*

### “HOMOGENIZING AGENTS – BEYOND INNER LINERS”

**Dr. Rikki Lamba, Dir. of International Business, Flow Polymers, LLC**

*Homogenizing agents are co-polymerized hydrocarbon resin with aromatic, naphthenic and aliphatic components. The unique formula makes it compatible with many elastomers and the blending of elastomers of unlike polarity is greatly improved. Performance and processability of single polymer systems is also improved across a broad spectrum of elastomers.*

*Increasing radialization in India is increasing the use of halo-butyl and especially bromo-butyl elastomers in inner liner compounds. The key benefit of halo-butyls is the decrease in air permeability; the downside is a significant increase in material costs and processing challenges. Homogenizing agents such as Promix® 400 can help reduce costs as well as improve performance and compound processability. Critical process parameters such as calendering and splice integrity are enhanced with the use of homogenizing agents. Furthermore, the cost can be further reduced by incorporating natural rubber in the formulation.*

*The increasing performance requirement for elastomeric components including tires is driving the migration from natural to synthetic rubber. Homogenizing agents are very effective in blending different polymers of dissimilar polarity. Improved homogenization has the potential to reduce mixing time as well as improve product quality.*

*The authors have explored the benefits of homogenizing agents in different tire compounds as well as non-tire formulations. In all cases, measurable improvements were observed. This paper will illustrate the benefits of homogenizing agents in new applications along with compounding guidelines. These guidelines will provide the direction to reduce costs, improve processability, consistency and uniformity.*

2015 Spring Meeting - DINNER RESERVATIONS - Reserve by April 19, 2015

Advanced Reservation - \$35.00 each \*\*\*\*Without prior reservation - \$40.00 each

Do you wish to donate to the student support fund? \$ \_\_\_\_\_

Reserve \_\_\_ tickets (pick up at door) 1) Pay at Door OR 2) Payment Enclosed \$ \_\_\_\_\_ (Cash, Check, Credit)

Credit Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_ Code \_\_\_\_\_

Name \_\_\_\_\_

Company \_\_\_\_\_

*E-mail reservations to [mpuskas@littlern.com](mailto:mpuskas@littlern.com) OR mail to Ohio Rubber Group, PO Box 341, Bath, OH 44210*

After Dinner Raffle – tickets will be available for purchase at the meeting



**2015 Hospitality Sponsors**

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Please send to: Ohio Rubber Group, PO Box 341, Bath, Ohio 44210



*2015 Hospitality Sponsors*

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*Harwick Standard Dist. Corp.*

*Nanotronics Imaging*

*ChemSpec, Ltd.*

*ChemRep, Inc.*

*Whitney Industrial Services, LLC.*

*Struktol Co. of America*

*Lord Corp.*



# MEMBERSHIP RENEWAL TIME!

It's a new year and that means it's time to renew your membership for 2015

Please use the form below OR on the website at [www.ohiorubbergroup.org](http://www.ohiorubbergroup.org)

Still only \$25 – Join today – Don't miss anything!

## 2015 OHIO RUBBER GROUP MEMBERSHIP APPLICATION

A SUBDIVISION OF THE RUBBER DIVISION OF THE AMERICAN CHEMICAL SOCIETY

DATE: \_\_\_\_\_

NAME: \_\_\_\_\_ TITLE \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

COMPANY: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

Membership fee: \$25 Contribution to Scholarship Endowment Fund: \$ \_\_\_\_\_ Total \$ \_\_\_\_\_

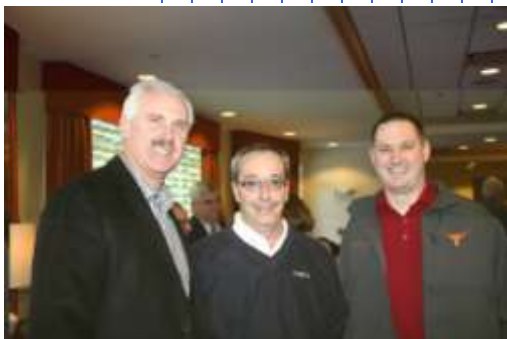
Payment (circle one): Cash Check (US dollars/US Bank) Visa MasterCard Discover AMEX

Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_

**EMERITUS/LIFE MEMBERS:** *No renewal necessary but please use this form for any mailing or email changes*

Return application w/payment to: **OHIO RUBBER GROUP PO BOX 341 BATH, OHIO 44210**

MEMBER SURVEY PLEASE COMPLETE	
Are you a member of: (Circle Answer)	
American Chemical Society	
Yes	No
Rubber Division, ACS	
Yes	No
Work on a committee	
Yes	No





# Register NOW!

ORG Summer Golf Outing - Tuesday, June 16, 2015

**This year we will be playing a 4 golfer scramble**

Calling all golfers! It's time to register for the annual Ohio Rubber Group June Golf Outing. This outing fills up quickly so please complete the following registration form and mail it promptly. The deadline is June 2nd, however, if there is remaining space after that date you can still join the fun. This year we will again play the beautiful Yankee Run

golf course so get your registrations in quickly as there are a limited number of slots available and this outing has sold out for the last 3 years.

Date: **Tuesday, June 16, 2015** Tee Time: **Shotgun start - 9:30 am**

Dinner: *Yankee Run Pavilion 3:30 pm*  
**(Catered by "Terrible Tom's Barbeque")**

Golf course: *Yankee Run Golf Course*  
7610 Warren-Sharon Road  
Brookfield, Ohio 44403  
[www.yankeerun.com](http://www.yankeerun.com) 330-448-8096

Cost: **\$120.00 per person**

*Includes golf w/cart, lunch, dinner, beverages, door prize, raffle ticket, skill awards and prizes.*

All golfers are encouraged to become members of the 2015 Ohio Rubber Group.

For those needing accommodations in Warren, rooms are available at the Avalon Inn and Resort. Make reservations directly with the Avalon Inn and resort at 800-828-2566.

Thanks for your support - we look forward to seeing you on the 16th! - Doug Ruch, ORG Golf Chair, 330-510-0107



## Calling All Corporate Sponsors! - 2015 Golf Hole Sponsorship

As you may know, the primary purpose of the ORG Summer Golf Outing is to provide funding for our annual scholarships. The success of this event relies primarily on the generous support of our corporate members. Once again, we are asking that you consider sponsoring a golf hole for the outing.

For each hole sponsored, you will receive your company name on a sign placed at one hole. In addition, your company will be recognized the day of the event, and in the upcoming ORG newsletter.

**The cost per hole is \$150.00 or 2 for \$225.00.** To participate, simply complete the bottom portion of this letter and return to the address provided w/payment **no later than June 2nd.** This will be the last day to sign up for a sponsorship to allow time for printing the sponsor signs. Please sign up early!

Thank you in advance for your support - Doug Ruch, 2015 June ORG Golf Chair

Yes! I would like to sponsor \_\_\_\_\_ hole(s) **1 hole= \$150, 2 holes = \$225**

Company Name \_\_\_\_\_

Contact Name \_\_\_\_\_ Contact email: \_\_\_\_\_

Please mail check payable to ORG or Credit Card info to: **ORG Golf, P.O. Box 341, Bath, OH 44210**  
Fax: 330-848-8947 or e-mail to: [mpuskas@littlern.com](mailto:mpuskas@littlern.com); phone 330-283-0845

# OHIO RUBBER GROUP SUMMER OUTING

Tuesday, June 16, 2015 - Yankee Run Golf Course, Brookfield, Ohio

Tee Time: **Shotgun start – 9:30 AM** Format: **4 golfer scramble**

PLEASE NOTE: All golfers are encouraged to join ORG for 2015

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## FOURSOME CAPTAIN:

---

Name \_\_\_\_\_ Company \_\_\_\_\_ Phone \_\_\_\_\_

---

Address \_\_\_\_\_ City, State, Zip \_\_\_\_\_ E-mail \_\_\_\_\_

Other Foursome Members (include name, company, email)

	FULL NAME AND (Note: Foursome Captain see above) EMAIL ADDRESS	COMPANY
2		
3		
4		

**PRICE: \$120 per person (includes golf w/cart, lunch, dinner, beverages, door prize, raffle ticket, skill awards and gifts)**

*Even if you don't golf, join us for dinner! DINNER ONLY: \$40 (Catered by "Terrible Tom's Barbeque")*

***Tee-Time: Shotgun start - 9:30 AM***

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## PAYMENT

Check enclosed (payable to Ohio Rubber Group) \$ \_\_\_\_\_ (OR)

Credit Card Total \$ \_\_\_\_\_ (circle one) Visa MasterCard AMEX Discover

Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_ Sec. Code: \_\_\_\_\_

**DEADLINE: June 2, 2015 \*\*\*\*\* NO REFUNDS after June 9, 2015**

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Return this form with payment to: Ohio Rubber Group, PO Box 341, Bath, Ohio 44210  
Fax: 330-848-8947 or email: [mpuskas@littlern.com](mailto:mpuskas@littlern.com)

## **News from the Rubber Division**

**Executive Committee:** Here is a brief update on Division activities for April 6<sup>th</sup>. **Reminder:** If you are an Area Director and you cannot attend the spring meeting in Greenville AND your Alternate Area Director will attend in your place, please let Secretary Jerry McCall and me know so that he or she can be officially seated at the Executive Committee meeting. So far, I have heard from the New England Rubber & Plastics Group. Thanks. Ed

1. **2015 Spring Meeting:** By now, you should have received the agenda and minutes for our 2015 Executive Committee meeting in Greenville SC on April 30<sup>th</sup> (Hyatt Regency Hotel/9:00-10:45 a.m./Redbud Room on First Floor). Chair Terry DeLapa will give an update on Strategic Planning during the meeting. As of 3+ weeks out, we have 111 signed up for the spring meeting in Greenville SC vs 83 signed up at the same time in 2014 (final count was 220). Linda McClure reports that the technical program includes 25 presentations (five are S&T Award Winners) and the Keynote Speaker is Ralph Dimenna-Michelin Senior Vice President, "Global Incubator Program". The Web program can be viewed at <http://rubber.confex.com/rubber/187/webprogram/meeting.html> which has the most current technical meeting information.

The following is an update on committee meeting changes for this spring meeting: Education Courses were cancelled due to lack of sign-ups; F&B Committee meeting starts at 10 am instead of 9 am; Student Affairs Committee Meeting Cancelled; Partnership Development Committee Meeting cancelled; and Marketing Committee Meeting Cancelled.

2. **2015 IEC:** As of April 1st, we had 187 exhibitors at 47,000 square feet and \$1,114,000 in paid revenue. This compares to this same time in 2013 which had 182 exhibitors at 43,500 square feet and \$515,250 in paid revenue AND in 2011 which had 168 exhibitors at 41,100 square feet and \$409,550 in paid revenue. Final numbers for 2013 were 234 exhibitors at 59,600 square feet and \$1,222,335 final revenue AND for 2011 were 235 exhibitors at 53,600 square feet and \$1,050,520 final revenue. Since February, Beth Berkheimer and Melanie Avdeyev have worked via numerous phone calls and emails to get all current payments in for this year's expo, collecting an additional \$150,000 and adding 26 exhibitors at 3,400 square feet.

3. **Education:** Christie Robinson reports the following Education Courses: **Selecting the Right Elastomer for Your Sealing Application** (April 21<sup>st</sup> at 2:00 p.m.-4:00 p.m.; Hilton Garden Inn, Twinsburg, OH; In conjunction with Ohio Rubber Group); **Rubber as an Engineering Material** (May 12<sup>th</sup> at 8:30 a.m.-4:30 p.m.; Hilton Garden Inn, Novi, MI; In conjunction with Detroit Rubber Group); **Intermediate to Advanced Compounding and Testing of Rubber** (May 12-14 at 8:30 a.m.-4:30 p.m.; Hilton Garden Inn, Twinsburg, OH AND on May 14<sup>th</sup> afternoon & May 15<sup>th</sup> at 8:30 a.m.-12:30 p.m., tours and hands on training will be held at ARDL in Akron, OH & Polymerics in Cuyahoga Falls, OH; **Internal Mixers and Mixing Parameters** (June 15<sup>th</sup> at 12:00 p.m.-5:00 p.m.; The King and Prince, St. Simons Island, GA; In conjunction with Southern Rubber Group. Check the website for a full 2015 schedule: <http://www.rubber.org/upcoming-training>.

4. **Student Outreach:** Christie Robinson reports that there will be 150 students from NE Ohio at the Division's International Elastomer Conference on Tuesday, October 13, 2015. They will experience elastomers through experiments of the different properties and have access to the EXPO floor. More information will be available at a later date; however, please contact Christie at [crobinson@rubber.org](mailto:crobinson@rubber.org) if you would like to help out and/or if your company would like to be a sponsor of this program.

**Edward L. Miller, PE**  
Executive Director  
**Rubber Division, ACS**  
411 Wolf Ledges Pkwy.  
Ste. 201  
Akron, OH 44311  
Tel: 330-972-6527  
Fax: 330-972-5269  
[emiller@rubber.org](mailto:emiller@rubber.org)