CAD NEWS

Summer 2019

A publication of the Color and Appearance Division of the Society of Plastics Engineers

Chairman's Message

Greetings SPE Color & Appearance Board Members & Friends!

As your new Chairperson for Color & Appearance, I am delighted to serve in this capacity and am looking forward to another fantastic year with our upcoming meetings and the topics that we will explore. We had a great a meeting at 2019 ANTEC* in Detroit, MI with attenuated interest in our presentations that was standing-room-only for our entire session.



We are also looking forward to our 2019 RETEC* meeting in September 23-25 in Cleveland, Ohio with a full line of great speakers. We will kick off the program with addressing the sustainability of colored plastics since our industry is under attack and we will review some of the strategies that can be offered to our customers and society in general.



Chairman's Letter

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Since these meetings tend to run so smoothly to the casual observer, I wanted to point out how much work goes into the planning, coordination and execution of these events and offer our appreciation.

For the CAD RETEC® meeting, I would like to point out the committee chairs and board members who are creating the two-day technical program; Chairs – Steve Esker, Mark Freshwater and Chuck DePew. Our Technical Program Chairs are Ann Smeltzer and Alex Prosapio. They are all working on a daily basis to provide our best-ever CAD RETEC® in just a few short weeks ahead in September. Also we appreciate our committee chairs for the tabletop exhibits and sponsorship coordination, the communications, publicity and registration efforts. I also want to mention all those who coordinate and participate in our charity run/walk and all other areas that are required to ensure that all the needs are met for a successful event. We appreciate all of your hard work, dedication and expertise applied to these activities and all of the other things you do.

I especially want to show our thanks to our corporate sponsors who provide the financial support from our more than 20 sponsors whose generosity allows us to execute beautiful and fun-filled events. We sincerely appreciate their willingness to allow their employees to participate in our events and serve on our committees.

For our ANTEC® event that was held in March of 2019, our committee & technical program chairs (*Cheryl Treat, Elizabeth Serdar and Betty Puckerin*) and many other board members created a very successful event and we thank them for that.

Our speakers, moderators and keynotes are at the heart of our program and without their research, papers and presentations we would not be enjoying our reputation as the largest and thriving chapter of SPE that we currently hold.

continued on page 2

Our conferences would not exist without our attendees and we are fortunate to have a loyal and robust following of large audiences that attend both our ANTEC* and RETEC* meetings every year. Thanks to all of our attendees who continue to support our efforts.

I would also like to extend our congratulations to our very own Bruce Mullholland who has served on our board for many years and has just been elected to the SPE executive board as the Vice President of Events. We are also appreciative of the other members of the executive board including Dr. Brian Landes (*President*), Dr. Jaime Gomez (*President-Elect*), Jeremy Dworshak (*VP Business/Finance*), Dr. Jason Lyons (*VP of Divisions*), Lynzie Nebel (*VP of Young Professionals*), Dr. Brian Grady (*Past President*), Patrick Farrey (*CEO*), Conor Carlin (*VP Marketing & Communications*), Dr. Scott Eastman (*VP Sections*), Dr. Raymond Pearson (*VP of Education & Technology*). Their excellence and leadership has created and perpetuated a venerable organization that is recognized for its unparalleled technical advancements worldwide of which we are proud participants.

I also want to express my personal thanks to our past chair Brian West who stepped into his position at a moment's notice to ensure the stability of our executive board during a period of unforeseen abrupt transition and also a personal mentor to me as I assume this new role as the executive chair of CAD. Brian has been a dedicated and astute member for many years, infusing his humor and wit along with his more-than capable leadership skills that have contributed to our success as an organization. It has been an honor and a privilege to work with Brian in this capacity.

Last but not least, I want to thank Mark Tyler who edits this newsletter and spends a great deal of his personal time putting this together for us to keep us on track, organized and informed. Mark also serves and has served on many of our other committees over the years and we are fortunate to have him on our board. Thanks Mark!

I hope to see all of you In Cleveland, OH for our CAD-RETEC® meeting in September Best Regards,

Doreen Becker 2019-2020 Chair Color & Appearance Division









THE COLOR & APPEARANCE DIVISION OF SPE PRESENTS

CAD RETEC® 2019

SEPTEMBER 23 - 25

RENAISSANCE CLEVELAND HOTEL, CLEVELAND, OH

DETAILS, SPONSORSHIPS & ONLINE REGISTRATION AT

www.specad.org

REGISTER BY: AUGUST 23, 2019 & SAVE \$100

Come join us for The 57th Annual Society of Plastics Engineers Color and Appearance Division RETEC® to meet and discuss topics related to plastics coloration. This year's theme is Rocking Color in Cleveland. CAD RETEC® is the longest running and largest technical conference in North America devoted to the coloring of plastics. It started as a technical conference focused on development, manufacturing and research in the field of color science, color measurement, and coloring plastics but has grown to be THE place to network with others in the industry.

2019 EVENTS

- Preconference Color Seminar (separate registration required)
- Two full days of technical sessions
- 60+ exhibitors showcasing products and services
- Excellent Networking opportunities and receptions



SOCIETY OF PLASTICS ENGINEERS 2019 CAD RETEC® GOLF OUTING

Monday September 23rd, 2019 Stonewater Golf Club

Since opening, StoneWater has played host to the Nationwide Tour Legend Financial Group Classic (2005, 2006, and 2007) and the first professional championship for Jason Day in 2007. In addition to Day, the tournaments welcomed PGA stars, including David Toms, Justin Leonard, Ben Curtis, Jason Dufner, Brandt Snedeker, Matt Kuchar, Bill Haas and Anthony Kim. The Nationwide players also rated StoneWater as one of their favorite tour stops.

Price: \$105.00 per golfer

Includes: Green & Cart Fees. Range, Lunch, Awards (hole prizes)

Scramble format – Teams will be drawn based on handicaps this year, *When registering, after your name input your typical 18 hole or 9 hole score. Please be honest to make this fair.*



Schedule (EST)

Registration: 10:00 am to 11:30 11:45 pm Shotgun Start Conference Opening Ceremony starts at 8:00 pm

Questions Contact:

Mark Tyler (570) 952.5255 or Mark Freshwater (201) 665.0091

or

Alex Prosapio (845) 641-0506



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CONFERENCE REGISTRATION CAD RETEC® 2019

Cleveland, Ohio · September 23-25, 2019
Presented by SPE Color and Appearance Division

Sponsorship Link

Attendee & Exhibitor Registration Link

(SELECT ONLY ONE TYPE OF REGISTRATION)

SPE Member 2019

Advance	\$390
Late / Onsite (After 8/23/19)	\$490

SPE Non-Member:

Advance	\$610
Late/Onsite (After 8/23/19)	\$710

OTHER Registration Types:

Speakers	\$190
Student (w/ Valid Student ID):	\$ 50
Emeritus:	\$100
Tabletop advanced registration	\$1,200
Tabletop late reg (After 8/23/19)	\$1.400

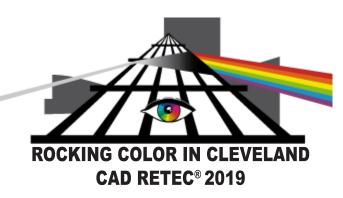
EXTRA CONFERENCE LITERATURE:

Extra RETEC 2019	\$115 x = \$
Archive DVD (1961-2007)	\$175 x = \$
(available on site)	

OTHER EVENTS REGISTRATION/RSVP

Golf Outing (Monday)	\$ 105
5K Fun Walk (Wednesday)	\$ 25
"Coloring of Plastics" Tutorial (Monday)	\$525





CAD RETEC® 2019 Tutorial

The Color and Appearance Division of SPE has been presenting the "Coloring of Plastics" tutorial at the start of the CAD RETEC® conference for many years. Many SPE members and non-members have benefited from this program. The tutorial is a great starting point for those just beginning a career, or an excellent continuing improvement opportunity to those who wish to add to their base knowledge of coloring of plastics. The course is full of practical information which is embellished and enlightened by the active participation of all the attendees.

Monday • September 23rd, 2019

The tutorial runs a full day on Monday prior to CAD RETEC® and does require a separate registration and fee. The attendance is limited to 20 persons, so register soon. Attendees receive a full-color manual to use as a reference when they return home.

Who might benefit from attending the tutorial?

Executives needing to better understand their company's coloring issues

Managers newly appointed and/or desiring to communicate more effectively with peers and subordinates

Color formulators/matchers to better understand the theory behind their work

Color specifiers/approvers to understand limitations in coloring of plastics

Sales personnel hoping to gain more technical knowledge to better serve their customers

Product designers wishing to better understand the technology behind the coloring of plastics, to make better and more informed decisions

Color manufacturing personnel to understand the impact of compounding on color

Color processors (injection molding, extrusion, etc) to better understand the technology ways they can impact the final color

Attendees will leave the course with a better understanding of color technology and should be more effective in their careers around color.

For more information about Color of Plastics Tutorial, please contact the Conference Chair and Tutorial Instructor Bruce Mulholland, bruce.mulholland@celanese.com or call 859-525-4765

To register for this opportunity please visit the SPECAD Website!

OPENING RECEPTION MONDAY EVENING SEPTEMBER 23RD, 8:00 - 11:00 PM at the Rock Hall of Fame with

Color Eye Blind entertainment!

ANNUAL SPE CAD SURVEY RAFFLE

We are looking for gifts to use for the SPE CAD Survey Raffle that will be given away at the end of the conference proceedings. If you have a prize of \$25 or more and want to supply for the raffle, please contact: Chuck DePew

or +1 765-914-3363



Milliken introduces range of Keyplast™ RESIST colors for highperformance engineering polymers

It's not easy to color high-performance engineering polymers with bright and vibrant hues. Not only are such materials subject to high-temperature processing, they also require steady, reliable performance properties when used, as is often the case, in demanding outdoor applications. Colors and additives cannot be allowed to negatively impact any of those properties.

As we continue to build our strong product portfolio and develop high performance colorants, Milliken is proud to introduce our new range of Keyplast RESIST products for coloring engineering polymers such as polyamides, polysulfones, PEEK, PPO and other high-heat resins and alloys.

Polyamides (aka nylon), in particular, have tended to provide significant coloring challenges in the past due to their chemical composition. Additives historically used to color many other resins did not prove effective in these resins. At first, many thought this problem to be related to the high heat processing requirements for nylons. But subsequent research revealed that normal colorants, both pigments and dyes, are reacted with the amide system and ruined by discoloration due to the loss of conjugation in the colorant molecule.

Nylon's toughness and other performance properties make the resin ideal for use in applications such as power tools, automotive components, gears, and appliance parts, many of which require precisely controlled coloration. But through continued research and development, Milliken has now developed Keyplast RESIST to allow it to be used effectively with all grades of nylon, including polyamide 6, 66, 46, 11 and 12.

Customers tend to choose these Keyplast RESIST for their brilliant colors and high-end properties. These materials offer improved weather resistance and light fastness, are high purity and perform well in the high-tem-



Keyplast™ RESIST colorants for high-performance engineering polymers

perature and chemically-reductive conditions typically associated with high-performance polymers.

Users of such colorants are all too aware of the severe product shortages currently impacting the market. Stricter enforcement in Asia of environmental regulations and manufacturing effluent limits has led to short supply primarily of key colorant intermediates, and even prompted plant closures or drastic cutbacks in production. As a result, for the past few quarters, the colorants market globally has seen unprecedented cost increases, which are impacting all levels of the supply chain.

Milliken, of course, is not immune to these market pressures, but is working to take a proactive approach regarding customer's needs.

For more details and information please contact us or visit us online at chemical.milliken.com

EUROPE: eurochem@milliken.com | **NORTH AMERICA**: millichem@milliken.com **LATIN AMERICA**: lachem@milliken.com | **ASIA**: asiachem@milliken.com



Preliminary Technical Program SPE CAD RETEC 2019

ROCKING COLOR IN CLEVELAND

Tuesday • September 24th 2019

CAD RETEC® 2019			
Time	Content	Speaker/Company, Sponsor	r Title
8:45	Opening Remarks	Steve Esker, Paramount Colors	Welcome to CAD RETEC® 2019 in Cleveland, OH
9:00	Keynote	Doreen Becker, Ampacet	Sustainability in the Plastics Industry
9:30	Paper	Kelly Schaefer, Color Synthesis Solutions	Colorant Migration Fastness as a Function of Polymer Additive Packages: Research into the Appropriate Use of PET grades in Food Contact Applications
10:00	Break		
10:30	Paper	Rich Covelli, Paramount Colors	Formulation of Liquid Colors - A Tutorial
11:00	Paper	Alex Willer, Sudarshan	The Science of Effect Pigments
11:30	Paper	Brian Coleman, Celanese	Rocking Color in the Lab: Understanding Beginner Colo Matching Misconceptions
Noon	Luncheon		
1:30	Paper	Nigel Smith, DCC/Lansco	Workhorse pigments for Plastics - Core Pigment Chemistries for the Polymer Colourist's Toolbox"
2:00	Paper	Justyn Pyz, Coperion	Tool Box for Quality Color Pigment Dispersions on Twin Screw Extruders
2:30	Paper	Christian Lechner, Clariant Plastics & Coatings	Improved Pigment Dispersion in Engineering Polymers with Sustainable, Non-food Competing Waxes
3:00	Break		
3:30	Paper	Anthony Rohrer, University of Akron	Recent Advances in Light Diffusion
4:00	Paper	Sophie Poelmans	Driving Polyolefins Growth and a More Sustainable Future
4:30 - 6:00	New Technology Forum	RETEC® Exhibitors	Topics, Products, Services
6:00 - 7:00	Networking Reception		spe



Preliminary Technical Program SPE CAD RETEC 2019

ROCKING COLOR IN CLEVELAND

Wednesday • September 25th 2019

	CAD RETEC® 2019		
Time	Content	Speaker/Company, Sponso	r Title
8:45	Welcome - Day 2	Steve Esker, Paramount Colors	
9:00	Paper	Alex Willer, Sudarshan	Welcome to CAD RETEC® 2019 in Cleveland, OH
9:30	Paper	Breeze Briggs, <i>BASF</i>	Surface Modification and Encapsulation: Performance Enhancements for Pigments
10:00	Break		Finding an Alternative to Dyes: Can Pigments Fill the Role
10:30	Paper	Dan Martelli, Heubach	Inorganic Pigments for MasterBatch
11:00	Paper	Brent Johnson, Milliken	Improvement for UV Absorbers
11:30	Paper	Philippe Lazerme, Clariant Plastics & Coatings	"The Circular Economy": Which Impact the Coloration of Plastics? - From Design to Recycling
Noon	Awards Luncheon		
1:30	Paper	Dr. Andy Francis, <i>Q-Lab</i>	Water delivery during Accelerated Weathering testing for Improved Correlation to Outdoor Results
2:00	Paper	Jack Ladson, Color Science Consultancy	Using Advanced Statistics to Estimate an Index of Merit for Color-Difference Distributions
2:30	Break		
3:00	Keynote	Ali Dhinojwala, <i>University of</i> Akron	Use of Melanin for Structural Colors
3:30	Paper	Mike Willis, Sun Chemical	Color Science from SPECAD
4:00	Closing Remarks	Steve Esker, Paramount Colors	
4:30	Raffle		





YOU ARE INVITED TO SUBMIT A PAPER FOR PUBLICATION & PRESENTATION Podium and poster presentations showcasing the latest in industrial, national laboratory and academic work Share your findings in polymer research or new and improved products and technologies

TOPICS WILL INCLUDE

Additive Manufacturing/3D Printing

Automotive

Bioplastics

Blow Molding

Building and Infrastructure

Color & Appearance

Composites

Decorating and Assembly / Joining

Electrical & Electronic

Engineering Properties & Structures

Extrusion

Failure Analysis

Flexible Packaging

Foams

Injection Molding

Medical Plastics

Mold Technology

Plastic Analysis

Plastic Pipe and Fittings

Plastics Recycling

Polymer Analysis

Polymer Modifiers & Additives

Product Design & Development

Rheology

Rotational Molding

Sustainability

Thermoforming

Thermoplastics Materials

Thermosets

Vinyl Plastics

A full manuscript submission is required and will be due by October 25, 2019. Your paper will be published as part of the ANTEC® 2020 proceedings.

FOR MORE INFORMATION PLEASE CONTACT:

Donna Davis Technical Program Co-Chair

Mark Spalding Technical Program Co-Chair

In Memoriam



DENNIS CONNOR REIS July 26, 1962 – July 14, 2019

After a courageous battle with glioblastoma, Dennis Reis passed away surrounded by family July 14, 2019. Born in Millwood, NY Dennis was the youngest of nine children. He leaves behind his beloved daughters Caela And Chelsea and cherished companion Sandra MacDonald. Dennis was a graduate of Lynchburg College.

He enjoyed a very successful career in Sales and Marketing with EMD Performance Materials and Dayglo. His generous spirit, warm smile, and infectious laugh will be surely missed. He was a best friend to many.

Memorial contributions are suggested in his name to the American Brain Tumor Association at www.abta.com

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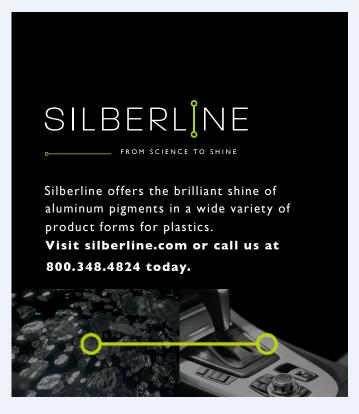
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BOARD MINUTES

The CAD Division posts the board minutes as soon as approved and they are accessible on our website.

Click here to review our board minutes.



INVITATION TO ATTEND OUR BOARD MEETINGS

The Color and Appearance Division regularly holds Board of Director (BOD) meetings at the ANTEC* and the CAD RETEC*. In addition, a Summer BOD meeting is typically held about 6 weeks prior to the next CAD RETEC*.

The Summer meeting is scheduled in various locations. A Winter BOD meeting is held in January. The Winter meeting is typically held at a site of a future CAD RETEC*.

Any SPE CAD members who wish to attend are welcome at these meetings. If interested in attending the next Board meeting, please contact the Division Chairperson for more information.

CAD OFFICERS



Councilor: Mercedes Landazuri, 219-764-3301 Apex Colors, Inc. mlandazuri@apexcolors.com Chairman:
Doreen Becker, 914-769-1679
Ampacet Corporation
doreen.becker@xxxampacet.com

Immediate Past Chairman: Brian West, 865-425-2113 Techmer PM LLC bwest@xxxtechmerpm.com

Finance Chair: Mark Tyler, 570-952-5255 Silberline Mfg tylerm@xxxsilberline.com Chair-Elect:

Mark Freshwater, 201 665 0091 Lansco Colors

mark@xxxpigments.com

Treasurer:

Bruce Mulholland, 859-525-4756

Celanese

bruce.mulholland@xxxcelanese.com

Secretary:

Michael Willis, 513-681-5950

Sun Chemical

michael.willis@sunchemical.com

Note: remove xxx after ampersand in email addresses before emailing – added here to prevent bots from capturing email.

CAD DIRECTORS

DIRECTORS until 2020

Matt Billiter, 412-260-0146 LANXESS Corporation matthew.billiter@xxxlanxess.com

Breeze Briggs, 248-304-5303 BASF Colors & Effects LLC breeze.briggs@xxxbasf.com

Jeff Drusda, 302 683 8025 Chemours jeffrey.drusda@xxxchemours.com

Steve Esker, 614-679-4677 Paramount Colors, Inc. steve@xxxparamountcolors.com

Daniel Hunter, 815-557-3098 Badger Color Concentrates, Inc. dhunter@xxxbadgercolor.com

Dan Martelli 609-879-1512 Heubach Color danmartelli@xxxheubachcolor.com

Todd McHenry, 412-809-4732 LANXESS todd.mchenry@xxxlanxess.com

Brenda (Mullins) Outlaw, 313-920-7113 BASF Colors & Effects brenda.outlaw@xxxbasf.com

TJ Stubbs, (270) 827-5571 Ext. 7142 Teknor Color Corp tstubbs@xxxteknorapex.com

DIRECTORS until 2021

Earl Balthazar, 817-719-0224 DataColor ebalthazar@xxxdatacolor.com

Ed Ford, 346-302-4610 Zeppelin Systems USA ed.ford@xxxzeppelin-usa.com

Nathan Karszes, 770-527-2409 Ferro

nathan.karszes@xxxferro.com
Bruce Mulholland, 859-525-4756

Celanese

bruce.mulholland@xxxcelanese.com

Jack Ladson, 267-981-7112 Color Science Consultancy jack@xxxColorScienceConsultancy.com

Alex Prosapio, 845-641-0596 Sudarshan Pigments aprosapio@xxxsudarshan.com

Elizabeth Serdar 513-532-5559 OMYA Inc.

elizabeth.serdar@xxxomya.com

Cheryl Treat, 313-570-3911 BASF Colors & Effects cheryl.treat@xxxbasf.com

Kimberly Williamson 706-892-8102 Techmer PM LLC kwilliamson@xxxtechmerpm.com

DIRECTORS until 2022

Scott Aumann, 912-210-0175 EMD Chemicals scott.aumann@xxxemdgroup.com,

Chuck DePew, 765-914-3363 Holland Colours Americas, Inc. cdepew@xxxhollandcolours.com

Jim Figaniak, 215 736-1126 Infinity LTL jim.figaniak@xxxltlcolor.com

Colin Green, 330-284-0274 Clariant Plastics & Coatings Additive BU Colin.Green@xxxclariant.com

Scott Heitzman, 513-681-5950 Sun Chemical Corporation scott.heitzman@xxxsunchemical.com

George Iannuzzi 914-261-8189 Sandream giannuzzi@xxxsandreamimpact.com

Betty Puckerin, 812-466-9828 Ampacet Corporation Betty.puckerin@xxxampacet.com

Mark Ryan, 513-874-0714 Shepherd Color mryan@xxxshepherdcolor.com

Ann Smeltzer, 412-298-4373 Clariant Plastics & Coatings ann.smeltzer@xxxclariant.com