



The European Adhesive Tape Association

## 8<sup>th</sup> Afera Tape College

# PROGRAMME

Brussels, 10-12 April

# 2017

---

### Gold Sponsors

## EASTMAN

 **BASF**  
We create chemistry



---

### Silver Sponsors



# 8th Afera Tape College

**10–12 April 2017, Brussels Marriott Hotel**



On behalf of European Adhesive Tape Association's Technical Committee, we are pleased to invite you to Afera's 8th Tape College. These days of learning follow just a year after our last successful event, which by popular demand we are offering at the same venue and with the same themes and many of the same speakers. This will allow Afera to host its International Technical Seminar, 2-6 April 2018 in Munich, Germany, highlighted by the Global Tape Forum and Global Test Methods Committee Meetings and drawing attendees from Asia, the Middle East and North America.

#### **Unique to the adhesive tape industry**

The Tape College is a popular, well-established technical learning event providing tape business professionals with the fundamentals and current technical essentials of adhesive tape technology. During this back-to-school experience, industry experts will educate you on the principles involved in the selection, formulation, manufacture, conversion, application, testing and regulation of tapes.



#### **Who attends**

The Tape College is geared toward first-time participants and is open to all industry professionals, both Afera and non-members alike, particularly those affiliated with adhesive tape manufacturers, raw materials, machine and packaging suppliers, distributors, converters, end users, research institutions and universities. R&D, customer and technical service, sales, marketing, engineering, production, processing and quality assurance personnel, as well as general management, will benefit from receiving a solid overview of the current technologies of the tape business.

#### **Updated, high-quality programme**

Why Tapes?, Tapes Deconstructed, Tape Production, Tape Use & Testing... The Tape College offers a high-quality programme of themed clusters of in-depth lectures, time for debate with presenters, and opportunities for networking. Building on the great success of our past events, we have responded to audience feedback by maintaining the work and travel friendly format: starting Monday at lunchtime and finishing Wednesday after lunch. We have tweaked our programme content to reflect relevant technical, market and regulatory developments, and again organised the lectures in an even, logical flow.

#### **Sponsorship**

Afera has enhanced its attractive event sponsorship packages so that your company will increase its visibility both before and during the Tape College. [Visit us online](#) or [contact Afera's Secretariat](#) for more information or to register as a sponsor now.

We look forward to seeing you in Brussels in April!

Evert Smit  
Afera Technical Committee Chairman  
&  
Astrid Lejeune  
Afera Secretary General

# Programme

## MONDAY, 10 APRIL 2017

13.00 – 13.50 **Buffet Lunch**

13.50 **Opening** by Evert Smit, Afera Technical Committee Chairman

### SESSION 1 14.00 – 15.30 WHY TAPES?

Session Chairman: **Evert Smit** – Lohmann GmbH & Co. KG

14.00 – 14.45 **Made to stick: A general introduction to tapes**  
*Evert Smit - Lohmann GmbH & Co. KG*

Business books have adopted terms like “stickiness”, “bond-ing” and “made to stick”, although they don’t discuss applications in bonding technology. What magic is pressure sensitive adhesive technology creating in our everyday lives? Why are surfaces made to stick and why do some bonds not survive? A key to making an idea sticky is to tell it as a story. This presentation tells the story of “adhesive tapes”, their construction and applications.

14.45 – 15.30 **Introduction to pressure sensitive adhesive tape technology**  
*Uwe Michel – tesa SE*

The cornerstones of tape performance are peel, creep and tack. These features are relevant for many application related properties. This presentation provides a survey of the most important relationships between physical performance and application properties. The lecture will align adhesive tape technology available with the demands of today and tomorrow’s industrial processes.

15.30 – 16.00 **Break**

### SESSION 2 16.00 – 18.30 TAPES DECONSTRUCTED

Session Chairman: **Reinhard Storbeck** – tesa SE

16.00 – 16.30 **An Introduction to acrylic pressure sensitive adhesives**  
*Mario de Filippis – the Dow Chemical Company*

An overview of acrylic technology for pressure sensitive adhesives will be presented. The chemistry and polymerisation of solvent, water-based, and 100% solid acrylic polymers will be discussed, as well as a comparison of performance features of these products versus other PSA technologies. Formulating techniques and end-use applications of acrylic PSAs will also be reviewed.

16.30 – 17.30 **Chemistry of PSA formulations based on styrene blockcopolymers, natural rubber and polyolefins**  
*Gert-Jan van Ruler – Eastman Chemical Middelburg B.V.*

An overview of the chemistry of several PSA formulations in which tackifying resins are used will be presented. This includes styrene block copolymers (SBCs), natural rubber and polyolefins. Tackifier resins

discussed will include hydrocarbon resins and rosin resins, as well as their modifications. Tools to characterise these types of resins will be given, making it easier for formulators to choose the right resin for the right application. The interaction and compatibility of tackifying resins with several polymers will be discussed, focussing on block copolymers and their use in HMPSA formulations.

17.30 – 18.30 **Question and answer session with speakers and additional visuals in the foyer**

18.30 **Welcome Cocktail**

20.00 **Free Evening**

## TUESDAY, 11 APRIL 2017

### SESSION 2 9.00 – 12.30 TAPES DECONSTRUCTED

Session Chairman: **Reinhard Storbeck** – tesa SE

09.00 – 09.25 **‘Let there be light’: UV curing of acrylic pressure-sensitive adhesives**  
*Dr. Francesca Bennet – tesa SE*

UV curing of pressure sensitive adhesives offers a range of options (and challenges!) for control of adhesive properties. This presentation will give an overview of the principles and concepts involved in UV curing an acrylic PSA, including UV sources, photoinitiators, photopolymerisation and photocrosslinking of acrylic polymers.

09.25 – 09.50 **Foams for technical tape applications**  
*Lukas Berger – Sekisui Alveo*

Polymeric foams and polyolefin foams in particular are widely used in the industry to produce a wide range of tapes for industrial, household, electronic, medical and construction applications. The properties of the foams can be adjusted to meet the requirements of the application, so the foam is suitable for a sealing tape, a fixation tape or a high performance mounting tape, for example. This presentation will give an overview of foam tapes for existing and potential new applications, their properties and the foams utilised. It will also focus on some particularities which need to be taken into account when producing a foam tape.

09.50 – 10.25 **Filmic and paper backings for tapes**  
*Dr. Ingo Neubert – tesa SE*

Polymeric films and paper webs are the most important backing materials for self-adhesive tapes. The backing material of the tape determines its mechanical properties (like conformability, stiffness and tensile strength) as well as its application-related properties (like thermal stability, UV stabilization and optical properties). Choosing the best backing material is therefore crucial for the final tape application. This presentation will provide an overview of different polymeric films and paper webs regarding their specific properties and typical applications. It will also point out

features of manufacturing and processing of the backing materials. Additionally, some aspects of cloth and non-woven backing materials will be discussed.

**10.25 – 11.00 Question and answer session with speakers and additional visuals in the foyer during a networking coffee break**

**11.00 – 11.25 Chemistry of release coatings**

*Jürgen Pomorin – Evonik Nutrition & Care GmbH*

Most self-adhesive products like labels and tapes require a release coating to protect the adhesive layer prior to its use. The release coating usually comes on a carrier called the release liner. Self-adhesive tapes may have a release layer on the backside. The release performance contributes substantially to the conversion properties of a self-adhesive product and therefore requires attention. Today, various release systems are available, dominated by silicone types. The aim of this paper is to explain the main differences between common release systems with a view on chemistry and the required coating and curing technology.

**11.25 – 11.50 Release coatings applied**

*Michael Ortner – Mondi Release Liner*

In addition to the many release chemistries available, there are also several coating methods, coating thicknesses and a plethora of substrates to choose from. In this paper, you will be given an insight into why one combination of substrate and silicone better fits a specific application than another. Considerations such as processing speed, temperature and environmental conditions will be taken into account.

**11.50 – 12.30 Question and answer session with speakers and additional visuals in the foyer**

**12.30 – 14.00 Lunch**

**SESSION 3 14.00 – 17.00 TAPE PRODUCTION**

Session Chairman: **Gert-Jan van Ruler** – Eastman Chemical Middelburg B.V.

**14.00 – 15.00 Coating and drying methods in R2R processes**

*Bernd Theling – OLBRICH GmbH*

The continuous coating or general converting of fabric surfaces, called roll-to-roll processing in this presentation, is one of the growing markets. Besides the rather classical product lines such as floor and wall coverings, the functional coatings – solar films, for example – are currently the centre of attention. The technical and decorative adhesives and their applications are still enjoying above-average growth.

In almost every one of the branches named, a suitably coatable liquid or compound is applied to a surface. The variety of coating methods is large, and dependent especially on the substrate, production speed, coat weight, demands on the surface or required quality of an even coating thickness.

The questions which have to be answered when selecting the most suitable coating method focus not only on the main task of coating, but also on handling – for example, product change, adjustable coating width, as well as validation of settings and cleaning procedures. The largest group of coating methods for roll-to-roll processing is that of roll coating methods, which will be described and classified in this presentation.

In addition to the coating of liquid compounds, the most important task in a roll-to-roll process is the drying, i.e. removal of the liquid components which are necessary for the coating process, but are not required for the function of the coating and which may even be detrimental.

Physically, the drying process is a combination of heat and mass transfer. The choice of drying is also dependent on a multitude of requirements: Which type of heat transfer (radiation, contact, convection) is usable and effective, and how can these be combined with the mass transfer – the actual drying process – plus coat weight and solvent etc.?

Not only the substrate, but the coating compounds, including the solvents used, have to be checked for temperature and heat sensitivity, vapour pressure, evaporation of solvents, diffusion into the film and much more. This presentation deals primarily with heat transfer via convection and the resulting drying process. The parameters able to be changed by the operator will be explained and evaluated, with a view to showing him potential for system optimisation.

**15.00 – 15.25 An introduction to hot melt PSA's and their application**

*Ian Grace - Bostik Smart Adhesives*

The participant will be given an introduction into generic formulations; which component does what & why?! The equipment that is required for coating and application advice.

**15.25 - 15.50 Insight into tape conversion technology**

*Peter Harendt, Lohmann GmbH & Co.KG*

For the final users, one of the key advantages of tapes is the ability to do pre-converting in customized designs. Like slitting large rolls into smaller ones fitting the applicators, cross-winded spools to improve efficiency, and customer-specific die-cuts that fit the final design. With this, the highest level of qualified application process is assured by pre-defining the bonding areas in thickness, width and design. An overview of converting technologies, per tape, will be given: slitting, laminating, spooling, laminating and different die-cutting technologies.



15.50 - 17.00 **Question and answer session with speakers and additional visuals in the foyer during a networking coffee break**

19.00 **Conference Dinner**

## WEDNESDAY, 12 APRIL 2017

### SESSION 4 09.00 – 12.40 TAPE USE & TESTING

Session Chairman: **Ian Grace - Bostik Smart Adhesives**

#### 09.00 – 09.45 **Modern surface treatment methods**

*Prof. Dr. Andreas Gross – Fraunhofer IFAM*

This lecture gives an overview of surface treatment methods enlarging the adhesion of (pressure sensitive) adhesives on the surfaces of several materials. Especially plasma treatments show an excellent influence. Therefore their different modes of functioning will be explained using examples. Economical and ecological aspects will also be regarded as possible fields of application in the future.

#### 09.45 - 10.45 **Forget about your thumb: How to test a tape in a more reliable way**

*Marko Beitmann – Coroplast Fritz Müller GmbH & Co. KG*

Characterisation of tape performances is much more difficult compared to measuring the length of a screw, e.g. several factors have a significant influence on the final properties of tapes. This session will cover the most important test methods, presenting globally harmonised GTF standards as well as tests that are used on a more international level like Afera, PSTC and JATMA. Dos and don'ts will be discussed and several real-life examples of tape tests from different industries will be presented. After this lesson, you should have a better understanding of the potentials and the limits of tape testing – and hopefully you will use your thumb less often.

10.45 – 11.15 **Break**

#### 11.15 – 12.00 **Keeping it together: Overview of regulatory affairs for tapes**

*Mark Macaré - Manager of Public Affairs for FINAT, Manager of BREF Revision for Afera*

The regulatory landscape for the tape industry is continuously evolving, and active involvement is of the utmost importance. The presentation will provide an overview of the most important regulatory developments for the tape industry and recommendations as to what the industry and companies individually can do to prepare for these.

#### 12.00 – 12.10 **Closing/Wrap-Up**

#### 12.10 – 13.30 **Question and answer session with speakers and additional visuals in the foyer plus lunch**

# Registration

## AFERA TAPE COLLEGE 2017 REGISTRATION

10-12 April 2017, Brussels Marriott Hotel

Please return this form to the Afera Secretariat before 1 March 2017

Scan and mail to mail@afera.com or Fax: +31-70-363 6348

Company	:		
Address	:		
	:		
Country	:		
Telephone	:		Fax:
E-mail	:		

HOTEL	BADGING DETAILS												
Brussels Marriott Hotel Rue A. Orts 1 -7, 1000 Brussels Belgium	<table> <tr> <th>Surname delegate(s)</th> <th>First name</th> </tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table>	Surname delegate(s)	First name										
Surname delegate(s)	First name												
Book your group rate for Afera													

Please indicate your participation at:

Monday, 10 April 2017	No. of persons	Tuesday, 11 April 2017	No. of persons
Lunch		Lunch	
Welcome Cocktail		Conference Dinner	
Wednesday, 12 April 2017			No. of persons
		Lunch	

TAPE COLLEGE PARTICIPATION FEE

IF REGISTERED BEFORE 1 MARCH 2017, RECEIVE 100 EURO DISCOUNT!

..... No. of Afera Members	x € 995 p.p.	= € .....
..... No. of Members of Afera Affiliated Associations	x € 1.250 p.p.	= € .....
..... No. of Non-Members	x € 1.350 p.p.	= € .....
..... Printed Proceedings (sent after event)	x € 100 p.p.	= € .....
<b>Please invoice me for the total amount of</b>		<b>€ .....</b>

see next page

# Registration

## AFERA TAPE COLLEGE 2017 REGISTRATION

I hereby acknowledge my understanding and acceptance of the cancellation terms for the Afera Tape College 2017.

I will reserve my hotel room **directly at the Brussels Marriott Hotel** through the separate accommodation online link as explained under "Conditions of Participation". My hotel bill will be settled directly with the hotel upon departure.

**I have reserved a room at the Brussels Marriott Hotel**

**YES/NO**

**For Afera's information, my/our date of arrival is:**

.....

**For Afera's information, my/our date of departure is:**

.....

**Name:**

**Date:**

**Signature:**

***Please return this form to the Afera Secretariat before 1 March 2017  
mail@afera.com fax number: +31-70-363 6348***

# Conditions of participation

## FEE

### I TAPE COLLEGE PARTICIPATION

#### Conference Package

##### *Includes:*

Full working programme; lunch and cocktail April 10; lunch and dinner April 11; lunch April 12; coffee breaks on all days; conference materials excluding proceedings of the Tape College.

##### *Excludes:*

Costs for hotel accommodation and proceedings

##### *College Fee:*

If you register **before 1 March 2017**, you will receive a **€100 discount!**

Afera Members	€995 per person
Members of National Affiliated Associations	€1.250 per person
Non-Members	€1.350 per person

### II HOTEL ROOMS

Afera has ensured the **preferential rate of €179** (single occupancy) per deluxe room per night inclusive of breakfast, Wi-Fi in the bedroom, VAT and service charges excluding city tax of €7,58 per room per night single occupancy. A supplement of €20 per room per night will apply for any double occupancy.

The number of rooms per day is limited and the **cut-off date** for these reservations is **17 March 2017**. After this date, rooms will be offered only upon space and rate availability.

## HOW TO REGISTER?

### I FOR THE TAPE COLLEGE

To register for the Afera Tape College 2016, please complete the **registration form** and **return it to the Afera Secretariat** (or use the fax number +31 70 363 63 48) **before 1 March 2017**.

### II HOTEL ROOM RESERVATION

Your room reservations should be made directly with the hotel. For this purpose, please **book online**

via “**Book your group rate for Afera**” as soon as

possible but **before 17 March 2017!**

All information and conditions on this webpage were developed by the Marriott Brussels Hotel. A confirmation will be sent to you by the Marriott upon registration.

## PAYMENT

### I FOR THE TAPE COLLEGE

All participants will receive an invoice upon confirmation of their Tape College participation. Full refund of the fee will be granted if cancellation is received in writing before **1 March 2017**. No one will be able to attend the college programme without having settled their payment. If payment has not been received by the day of the event, final settlement will be possible by means of completing a credit card statement at the Afera registration desk at the Brussels Marriott Hotel.

### II FOR THE HOTEL

To be settled upon departure from the hotel.

## CANCELLATION POLICY

### I TAPE COLLEGE PARTICIPATION

Full refund of the participation fee will be granted if the cancellation is received in writing **no later than 1 March 2017**.

Full refund less a **handling fee of €150 per registrant** will be granted to requests received in writing **on or before 14 March 2017**.

**No refunds** will be granted for requests **after 14 March 2017**. Telephone cancellations will not be accepted!

### II HOTEL RESERVATION

Cancellation of hotel rooms will be dealt with in accordance with the terms agreed with the hotel and as mentioned on the Brussels Marriott webpage accessible via the accommodation link:

All cancellations will be made directly with the hotel and can be done free of charge up to **72 hrs. before arrival**. After this time a cancellation charge of one night's stay will be charged.