

Trends & Innovation news dedicated to abrasive producers [by Ahlstrom]



Explore an endless galaxy of abrasive discoveries

EVENT

The DediCOATED fair is back to connect you to the abrasive world

OPPORTUNITIES

The «INFINITY» project goes ahead!

MARKET

Metallography: a precise discipline that requires state-of-the-art polishing



In line with our efforts to remain at the forefront and explore new worlds, we have used Artificial Intelligence to create this document and the visuals for DediCOATED.

THE DediCOATED VIRTUAL TRADE SHOW is back to connect you to the world of abrasives

After the success of the 1st edition of the DediCOATED fair, it was clear that Ahlstrom would have to follow it up with a new edition of this one-of-a-kind event. Book your slot between 4 and 10 October to make your direct connection to the abrasives industry.



- » sustainability and the attention we need to pay to protect our planet;
- » manufacturing and the attention it requires;
- » the commitment to innovation, and the everyday focus on the questions raised by our partners.

A format adapted to your expectations

As Tony Lesire, Head of Sales & Marketing – Abrasive BU puts it: «As we see it, building tomorrow's successes means setting up exchanges and meetings and facilitating co-construction through participatory «collective intelligence» workshops and more open sharing between customers and partners.»

To achieve that ambition, we are proposing an effective format combining content relevant to you and an intense program of events. Organized events during the fair will include:

- » Talks by experts,
- » Virtual meetings,
- » Virtual stalls
- » A wheel of fortune and the surprises that go with it.

The edition packs a lot into a 4-day program to make the most of your time. All the talks are scheduled twice a day so that no-one misses them. Finally, there will be an even stronger participatory and interactive element this time round.

So to get all the content details and sign up, make a note now of the date, 11 September, when this unmissable fair will be officially launched.

When it was launched in 2021, DediCOATED, which focused on a few important values - innovation, expertise and the exchanging of ideas - fulfilled all of its promises:

- » to allow people to come together in a new way;
- » to stimulate collective intelligence;
- » to bring you a maximum dose of added value.

The success of that event guaranteed there would be a second edition online from 4 to 10 October, and this time we will be covering some new topical subjects.

Complementary profiles for shared objectives

Bringing together experts from every part of the abrasives production chain (backing / grit / resin manufacturers, process maker, consultant), this fair will offer a wide-angle vision of the coated abrasives market, with the aim of helping you identify new openings to develop your business.

Changing needs also mean high expectations. The theme and common thread running through this edition is **Attention**, and we will be seeking to bring you solutions on:



THE SUCCESS OF THE FIRST EDITION



HIGHLIGHTS OF THE NEW EDITION

CONFERENCE 360

For a mix of complementary points of view on sustainability and an overall vision, join us and interact with the experts.

[Program details on page 4;](#)

«MONOCRYSTALLINE»

Talk by a grit supplier on how innovations in raw materials are contributing to sustainability;

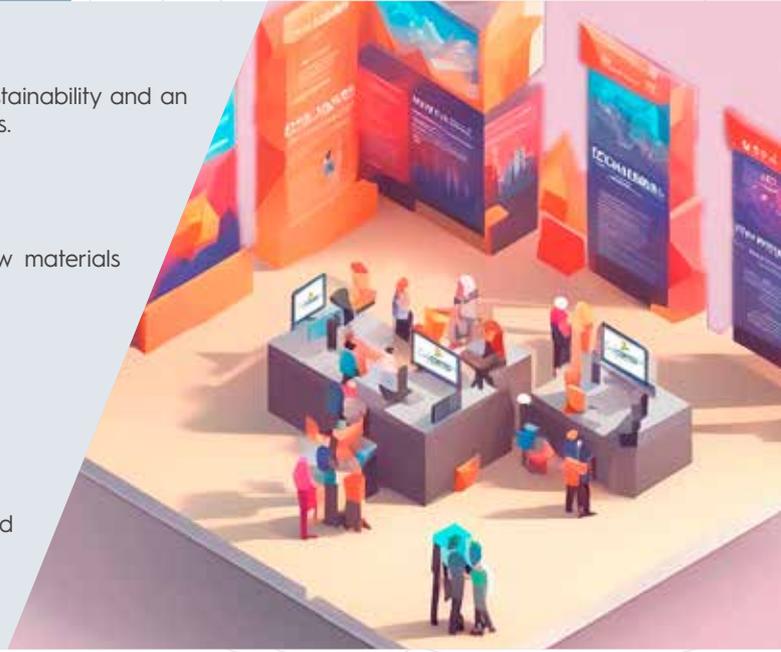
PAPER PLAY WORKSHOP

When interactivity makes a unique talk.

[For more information, see page 5;](#)

MARKET INSIGHT BY AFRY

Get an understanding of the different wood based panel types (particleboard, MDF/HDF) and surfacing materials, related developments as well as an up-to-date market outlook.



AHLSTROM'S SPEAKERS



Estelle SEIBERT
MARKETING
MANAGER

Organizer
& moderator

» **EXPERIENCE:** 19 years in the paper and coated abrasive industry with a creative approach in content/ event organization.

« Create and live unique momentum with customers, colleagues and partners, really gives meaning to my work. »



Loic GENETAY
PLANT
MANAGER
ARCHES

Speaker

» **EXPERIENCE:** Long experience in operations management, with particular expertise in the continuous improvement of processes and organizations, to ensure sustainable business performance.

« I'm always happy to share how we can improve our performance and impact by thinking out-of-the-box and trying to challenge what we've been used to doing for years, in order to be even better. »



Francis POIROT
HEAD OF PRODUCT
DEVELOPMENT
& TCS

Speaker

» **EXPERIENCE:** More than 30 years' experience in the paper industry and 15 years of technical customer support in the coated abrasive with a specific attention to bring the customer's voice in the heart of the plant.

« I am excited to discuss with a wide panel of people about our new technology to create new business and innovation opportunities on the market. »



Tony LESIRE
HEAD OF SALES
& MARKETING
ABRASIVE BU

Speaker

» **EXPERIENCE:** 30 years of experience in sales B-to-B and passionate about paper & composites based abrasive materials.

« Always eager to meet and share with customers and co-suppliers to support all stakeholders in future industrial challenges. »



Ilyasse OUANNOU
TECHNICAL
CUSTOMER
SUPPORT

Speaker

» **EXPERIENCE:** Life Cycle Assessment.

« Can't wait to take part in such an event. »



Paulina VELEZ
MANAGER, CLIMATE
CHANGE & LIFE
CYCLE ASSESSMENT

Speaker

» **EXPERIENCE:** Carbon accounting, life cycle assessment

« Life cycle thinking and collaboration between stakeholders in the value chain are key to advancing on sustainability. »



"Sustain-ACTIVITY 360"

Discover a holistic approach to sustainability throughout the abrasives supply chain, which challenges key suppliers on their sustainability pillars – environmental, economic and social – to pinpoint how these pillars can form the backbone of the ecosystem and support your green transition.

■ WE WILL COVER:

- ▶ Initiatives to protect natural resources
- ▶ New raw materials/equipment/processes for more sustainable abrasives production
- ▶ Carbon footprint: measurement/impacts/actions
- ▶ Energy consumption/reduction

■ THIS CONFERENCE IS FOR YOU IF:

You are a procurement/production/sustainability/Product Development and Innovation (PDI)/R&D manager, looking for:

- ▶ Ideas for a greener abrasives supply chain
- ▶ Solutions to improve the sustainability of processes & products

■ AHLSTROM WILL PRESENT:

- ▶ The practical measures we have implemented at our Arches site, to reduce our carbon footprint and manage our water consumption.
- ▶ Our involvement with SEAM.
- ▶ More sustainable products, e.g., organically-sourced paper, recycled paper, 2-Save, TEX-STYLE™, etc.

Ahlstrom presenter: Loïc (Arches' plant director) and a representative from each co-supplier.

→ Date:

Oct 4, 9:20am-10:20am CEST | 3:30pm-4:30pm CEST



"Life Cycle Assessment (LCA) and Carbon Footprint of Products (CFP)"



Meet the experts to get a high-level introduction and understanding of LCA and CFP, and raise your awareness of the latest buzzwords relating to the green transition. This is also an opportunity to find out about an ongoing case study on abrasive paper backing, including the methodology we are following and the different challenges we need to resolve.

■ WE WILL COVER:

- ▶ What are LCA and CFP?
- ▶ How they can help businesses and what are the internal & external benefits?

- ▶ What tools can be used for this purpose?
- ▶ What is the Ahlstrom abrasives strategy?
- ▶ What is our calculations methodology and how do we collect data?
- ▶ Ongoing case study and next steps.

■ THIS CONFERENCE IS FOR YOU IF:

- ▶ Your company has decided it's time to make climate action a priority but you're not sure where to start
- ▶ You want to understand the concept of corporate carbon footprint
- ▶ You are a sustainable stakeholder, willing to develop an approach that includes the whole value chain
- ▶ You are a product manager interested in finding out how Ahlstrom can support you

■ AHLSTROM WILL PRESENT:

The product: TEX-STYLE™.

Ahlstrom presenters: Ilyasse and Paulina.

→ Date:

Oct 5, 9:00am-09:50am CEST | 3:00pm-3:50pm CEST



5 key points to understand about PAPERS to boost performance and make a difference"

Boost your performance and make a difference through a better understanding of the subtleties of abrasives production. Our experts answer 5 key questions to give you an insight into procurement, product selection and technical factors.



■ THE 5 QUESTIONS:

- 1 What is unique about the abrasive paper production process?
- 2 How do you convert €/kg into €/m² and what can we learn from this conversion?
- 3 What happens if we reduce grammage by 15%?
- 4 What are latex papers for?
- 5 How does the latex porosity influence the remoistening of paper backing?

■ THIS CONFERENCE IS FOR YOU IF:

You are a procurement / production / PDI / R&D manager who wants a better understanding of the correlation between grammage, cost, features and process.

Ahlstrom presenters: Tony and Francis.

→ Date:

Oct 10, 10:40am-11:30am CEST | 4:40pm-5:30pm CEST

Paper workshop P.L.A.Y

Get ready to explore the unique characteristics of abrasive paper backings, uncover correlations and unique features, and ask specific questions - all in an edutainment mode that will keep you engaged and entertained. The P.L.A.Y. workshop is not your average learning experience - it's a Paper, Learning, Abrasive, YEE-HAW! adventure that you won't want to miss. With active participation and hands-on learning, you'll leave with a new-found understanding of abrasive paper backings that will empower you in your professional life.

■ WE WILL COVER:

- › correlations between barrier | surfaces | smoothness | bulkiness | fine grits | remoistening

■ THIS CONFERENCE IS FOR YOU IF:

- › You are a Purchase, Production, PDI, or R&D Manager seeking to empower yourself with self-reasoning.
- › You are looking for a fresh approach that will leave you energized.
- › You want to get new ideas to solve remoistening and blotchiness issues

■ AHLSTROM WILL PRESENT:

- › Instructive games and fun activities so you can learn in a relaxed atmosphere.

Ahlstrom presenters: Estelle and Francis.

→ Date:

Oct 9, 11am-11:50am CEST | 5pm-5:50pm CEST



METALLOGRAPHY: a precise discipline that requires state-of-the-art polishing

When you know how important metal is to so many leading industrial companies, it is clear that the analysis of the materials must be as accurate as possible before they are used. These studies, known as metallography, require optimum preparation of the specimens tested, and that involves polishing. Here Escil, a company specializing in metallographic specimen preparation, and its technical and commercial agent, Maxime Brasseur, explain all...



sectors. These analyses are carried out in R&D centers, but also in quality monitoring labs, where the quality of the metal can be checked to see if it meets the specifications. Depending on the performances that must be achieved, and in some cases improved, they can also help to **find new alloys to meet specific needs** (e.g. how to increase the impact resistance of the materials used in airplane fuselages).

When abrasives come into contact with metal

Before it can be precisely examined, a specimen of metal has to undergo very high quality polishing, essential to prepare it for analysis, but without seeking to give it a particular finish.

To do this, the surface obtained by a mechanical or even an electrolytic process must be flat and free of structural deformation, so as to avoid any risk of interpretation errors. This is because the slightest scratch, pollution or surface burn would alter the sample and distort the results of the microscopic analysis, which would then throw doubt on the quality of the metal and make further studies necessary.

The type of abrasive must be perfectly calibrated to meet the needs of this precision market.

Understanding metallography

Metallography is the analysis of the microscopic internal structure of metals, both pure metals and alloys. It is practiced in many industrial sectors (e.g. automotive, aerospace, watchmaking, metallurgy, nuclear power, weapons, research, etc.).

The initial metallographic examination of a specimen often gives rise to other tests such as **strength tests to determine the mechanical properties** of the material, and therefore its possible uses in related

ESCIL

Since 1971, Lyon-based firm ESCIL has been working with research and quality control laboratories on the materials used in the preparation of metallographic specimens. With its intimate knowledge of the manufacturing of the appropriate machines and consumables, it is able to offer a complete range of turnkey solutions.



Here they give us an insight into their know-how and an exceptional discipline.



<https://www.escil.com/>

A SPECIAL TALK DURING THE *Dedi*COATED 3.0 FAIR TO SATISFY YOUR CURIOSITY



During the «Play» workshop, Estelle Seibert and Francis Poirot will talk about the barriers that can impact surface condition, adherence and rewetting.

It will also be an opportunity to talk about the Blue line range of latex papers, which could be used for new applications requiring specific properties, such as for metallography. (e.g. greater smoothness, new densities/thicknesses, sheet opening that facilitates the adherence of binders and/or wettability, etc.).



THE POLISHING SEQUENCE in 4 stages

Once the specimen has been taken from its original piece, it undergoes an initial preparation process before the crucial polishing stage. To guarantee success, 4 consecutive steps must be followed:

STEP 1 ROUGHING:

appropriate abrasives, with very coarse grits (e.g. P40 - 60) are used to achieve a flat reference surface;

STEP 3 POLISHING:

diamond abrasive suspensions (e.g. 9 µm to 0.25 µm) poured onto a soft medium (cloth or flocked felt) are used to achieve a mirror polished surface, the ultimate finish for a perfect polish

To reveal the internal structures of a specimen, it is necessary to use an etching reagent after polishing and/or superfinishing. The specimen is then ready to be analyzed.

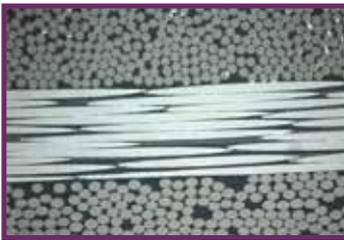
STEP 2 PRE-POLISHING:

a succession of finer and finer grits (e.g. P80 - P2500) are used to achieve a finely scratched surface;

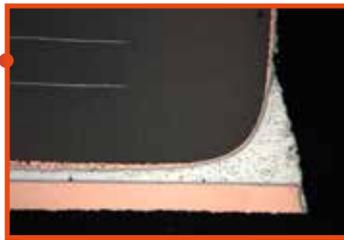
STEP 4 SUPERFINISHING:

after polishing, in some cases, depending on the analysis to be carried out, the last remaining micro-scratches on the surface can be eliminated in one final stage using ultra-fine abrasives such as colloidal silica (0.05 µm).

MICROSCOPIC VIEW OF DIFFERENT MATERIALS SPECIMEN



CARBON COMPOSITE



ELECTRONIC COMPONENT



FERRITE PERLITE IN STRIP

WHICH ABRASIVES FOR WHICH JOB?



To prevent the slightest scratching of the specimen's surface, the choice of abrasives and their quality are crucial criteria that must be considered in advance. Fixed onto the polisher, the product selected will produce a mirror polish, or at least the finish required for the analysis. So:

- **For a single use**, a paper-based abrasive with silicon carbide (or aluminum oxide) grits, whose grain size will vary between P80 and P4000, is suitable;
- **Abrasives on a paper backing**, which is softer, offer better compressibility/cushioning than film.
- **PSA bonding** requires a great deal of attention to ensure perfect polishing. Once again, a paper backing with an appropriate surface texture will be preferred to ensure good adherence.

METALLOGRAPHY: A CONCRETE CASE STUDY FOR «INFINITY»



«INFINITY» could well revolutionize current practices to achieve production of backing papers suitable for metallography, by:

- Offering a paper product that combines the advantages of film with the properties expected:
 - an **improved surface**;
 - a product which, although **harder than traditional latex paper**, would still have **good compressibility properties** and offer the sensation of a «more supple bulk» thanks to greater thickness;
 - **Very effective adherence** thanks to a back surface developed to be compatible with PSA attachments.
- **Developing a new range in line with the ecological transition**, whether this means testing natural latexes or backings including 70% certified renewable materials.
- **Adding colors to the abrasives**, to help you stand out and take your marketing in a new direction.

Are you interested in the metallography market?
Let's work on it together!

THE «INFINITY» project goes ahead!



You will remember that we told you some time ago that we were investing in machine no. 8... Well, that's a wrap! Originally launched in 2013, the work on converting our machine, now known as the «Infinity» project, finally got underway over the summer. So now all your ideas for papers to ensure you stand out on the market can become reality.

By becoming the «Infinity» machine, the «no. 8» now more than ever deserves its status as the machine that embodies the very best of our know-how. **Now you can discover its full potential and judge for yourself by ordering samples that demonstrate the new possibilities.**

Experts hard at work for the last years

After the PM6 rehaul, this new capex required engineering research and almost 50 people working together on designing this project, including our own teams and different external partners. The development gathered pace in the last three years, culminating in a 4-week shutdown for installation.

We can only commend the outstanding joint success this transformation represents. It constitutes a **key step in the expansion of our plant and our development on the abrasives market, whilst also upgrading the products to meet your needs.**

Our investment, your improved offer

With «Infinity», the possibilities become endless, as the machine is designed to generate ever more added value. Let's just take a look at two of the major benefits:

► **EFFICIENCY:** increased attention is paid to making sure **the right paper is used for each application**, with an ever more precise awareness of the exact level of quality required. These optimum choices are also accompanied by **increased competitiveness since inline coating is also possible now.**

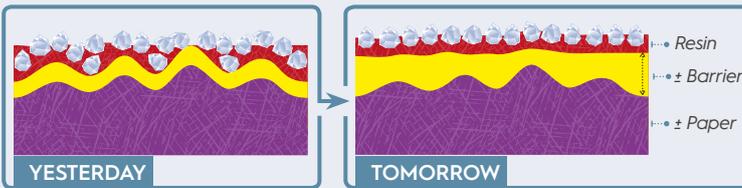
► **DIFFERENTIATION:** it is possible to produce **product backings that meet your requirements even more closely**, in terms of both the colors available and the functionalities.

To get a concrete idea of the possibilities right now, you can ask for samples.

No doubt about it, «Infinity» is so much more than just a machine conversion! It's a mindset we share with you, the customer, focused on innovation and collaboration, to offer you more products and techniques than ever before, based on informed choices.



TECHNICAL BENEFITS



- New glossy surface to accommodate super fine grits
 - Fiber-based alternative to film surfaces
 - Less resin used
- Various barrier thicknesses (on both sides)
 - Softness of final product
 - Easy remoistening
- Inline black/color coatings
 - Cost-efficient marketing design
- Bulky structure :
 - New feel

FROM PLASTIC TO PURPOSE

BOUNDLESS SUSTAINABLE SOLUTIONS

With our new «From Plastic to **PURPOSE**» program, we are re-examining our needs to find technical solutions that are friendlier to the environment. We don't claim to have replacements with equivalent properties for all plastic films. Rather we want to look at why we use plastic film and whether it and all its functionalities are really necessary. This review will undoubtedly allow us to identify new avenues for production and consumption. Targeted quality and eco-design are more than ever sure to be the guiding principles for all future developments.



THE VISION

Editorial director : Estelle Seibert

Editorial committee : Estelle Seibert, Tony Lesire, Francis Poirot, Pierre Mary, Emmanuelle Picard, Marie Dubois, Paulina Velez, Lyasse Ouannou, Loic Genetay.

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CONGRATULATIONS, YOU'VE REACHED THE END OF YOUR READING! To reward your efforts, here's a code that will allow you to spin our wheel of fortune during the DediCOATED event.

