

# UNFOLDED

A PAPER ABOUT CARTONBOARD



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SUSTAINABLE  
PRODUCTS  
ENSURE  
SUSTAINED  
CONFIDENCE

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## SUSTAINABLE PRODUCTS ENSURE SUSTAINED CONFIDENCE

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Ladies and gentlemen,  
Dear business partners!

On 24 February 2017, the German Federal Ministry of Food and Agriculture (German: Bundesministerium für Ernährung und Landwirtschaft, BMEL) presented the fourth draft of the mineral oil regulation. FOODBOARD™ already complies with the provisions listed in the document as well as the aspired future limit of mineral oil migration. With this draft, the authority is now focusing entirely on Mineral Oil Aromatic Hydrocarbons (MOAH) and the migration from the food contact material into the foodstuff. The maximum migration value into food has been defined with a limit of 0.5 mg/kg MOAH (C16 to C35). The long-term intended detection limit is 0.15 milligrams – the only reason mentioned for the temporary higher limit is the current restriction in available analytic capabilities. Food contact materials made out of recovered paper may only be produced and placed on the market if a functional barrier ensures that no Mineral Oil Aromatic Hydrocarbons are migrating from the food contact material into foodstuffs.



This is exactly what FOODBOARD™ does, and much more: Our cartonboard with functional barrier also offers comprehensive protection against cross-contamination. During storage and transport, unintended substances can migrate from secondary or transport packaging and from the environment (e.g. exhaust fumes) into packed food. Mineral oil analyses of a great number of different food products from supermarket shelves, packed in virgin fibre or recycled cartonboard as well as standard plastic, have shown migration from MOAH into food due to cross-contamination. The only effective solution is a functional barrier between food and the packaging materials as well as the environment.

Since February 2016 the first foods packed in FOODBOARD™ are on the shelves, helping to ensure lasting consumer confidence. Thanks to its functional barrier FOODBOARD™ stands for safe food packaging, so consumers can feel good about buying food at the supermarket. This aspect was honored at the PPI Awards 2016 with the coveted “Fibre Based Packaging Innovation Award 2016”.

Sustainable and responsible business practices and actions are an integral part of our corporate policy. The current sustainability report of the Mayr-Melnhof Group illustrates how the MM Group takes responsibility for the environment, its employees, and society as a whole.

Dear partners of MM Karton, dear customers, as you can see, we are making things happen: the demands of the market are increasing and calling for new cartonboard packaging solutions in terms of better, safer products for discerning consumers. With our solutions, we lay the foundation for successful marketing of all of your consumer goods!

A handwritten signature in black ink, appearing to be 'FR' followed by a stylized flourish.

Franz Rappold  
Board Member

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# FOURTH DRAFT OF GERMAN MINERAL OIL REGULATION PUBLISHED

## FOODBOARD™, CARTONBOARD WITH FUNCTIONAL BARRIER, IS IN FULL COMPLIANCE

On 24 February 2017, the German Federal Ministry of Food and Agriculture (German: Bundesministerium für Ernährung und Landwirtschaft, BMEL) presented the latest draft regulation “22<sup>nd</sup> Ordinance for amendments to the regulation of food contact materials” (mineral oil regulation). As expected, a functional barrier will be obligatory as an effective solution to migration – FOODBOARD™ ensures highest product safety for packed food.

### **Fourth draft of the Mineral Oil Regulation calls for barrier**

With this draft, the authority is now focusing entirely on Mineral Oil Aromatic Hydrocarbons (MOAH) and the migration from the food contact material into the foodstuff. § 6a (1) stipulates “... , that no Mineral Oil Aromatic Hydrocarbons migrate from the food contact material into foodstuffs.”

The maximum migration value into food has been defined with a limit of 0.5 mg/kg MOAH (C16 to C35). § 6a (1) states: “Up to a detection limit of 0.5 milligrams of the sum of Mineral Oil Aromatic Hydrocarbons per kilogram food or food simulant, a migration is deemed not to have occurred.”

“The long-term intended detection limit of 0.15 milligrams per kilogram food / food simulant for the migration of MOAH from food contact materials can currently not be achieved for every foodstuff.” The only reason mentioned for the temporary higher limit is the current restriction in available analytic capabilities.

The distributor is responsible to ensure compliance with the relevant migration limit values. “§ 6a (1) Food contact materials made out of paper, paperboard or cartonboard using recovered paper may only be produced and placed on the market if a

functional barrier in accordance with § 2 (9) ensures that no Mineral Oil Aromatic Hydrocarbons are migrating from the food contact material into foodstuffs.”

A functional barrier as defined by § 2 (9) is: “a) one or more layers or coatings of a food contact material or b) the wrapping of a foodstuff”

Furthermore, the authority differentiates between conditions of applications or nature of the foodstuff itself where no migration is expected. The authorities cite frozen food, table salt and dry food with short-term contact as example of this.

In summary, we can say: Taking into consideration the whole supply chain, the total migration of the food packaging in retail shelves must be below the current migration limit of 0.5 mg/kg MOAH (C16 to C35), otherwise a functional barrier for food packaging has to be used.

### **Timeline**

Industry and associations had the opportunity to comment on the draft until mid-April 2017. Then there may be a further hearing or changes may be made to the draft. A vote within the German ministries must also be held. Experience shows that a

possible subsequent EU notification process and coordination with WTO can take up to one year. Similar to the printing ink regulation it is possible that the EU is striving for a Europe-wide regulation. The fourth draft of the mineral oil regulation calls for a transition period of one and a half years after promulgation.

**Sustainable, functional barrier solution from  
MM Karton: FOODBOARD™**

Since the mineral oil subject became known, Mayr-Melnhof Karton has taken the lead in working on a solution with a team of experts and in consultation with the German authorities with the aim of the highest possible consumer protection. With FOODBOARD™, our cartonboard with functional barrier, we offer a sustainable packaging solution, which protects your

product from mineral oil migration, and already complies with the aspired future limit of mineral oil migration.

The ecological benefits of a sustainable packaging economy are further guaranteed by the use of FOODBOARD™: FOODBOARD™ is a mono-material, a pure cartonboard solution from renewable raw materials, and not an extruded or laminated compound – the cartonboard is therefore fully recyclable and bio-degradable. The innovative barrier cartonboard is available with FSC® or PEFC™ certification.

If you are interested in FOODBOARD™ or have further questions, please contact our team of experts at [FOODBOARD@mm-karton.com](mailto:FOODBOARD@mm-karton.com).

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**F**OODBOARD™  
PROTECTS FOOD  
AGAINST MINERAL OILS

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**Cartonboard with functional barrier**

- ✓ protects against mineral oils and other defined unintended substances
- ✓ is recyclable, from renewable raw materials and available with FSC® or PEFC™ certification
- ✓ is in full compliance with the 4<sup>th</sup> draft of the German Mineral Oil Regulation and meets the much stricter detection limits targeted by the authorities



# FOODBOARD™ IN THE MEDIA

The German television consumer magazines “plusminus” and “ARD-Buffer” both recently reported in-depth on the topic of mineral oil migration on several channels (Das Erste, SWR) within a short period of time. FOODBOARD™ was presented as THE safe and sustainable solution.

## Mineral oil in food – recognised as a problem by the public

The issue of mineral oil migration has been repeatedly discussed in the media, most recently by the economic policy television magazine “plusminus” (aired on 30 August 2016, Das Erste and SWR) as well as the consumer oriented service broadcast “ARD-Buffer” (aired on 8 November 2016, Das Erste). The conclusion is that only a functional barrier as a “buffer” between the packaged goods and the environment can be considered an effective solution.

FOODBOARD™ was presented in both programmes as the sustainable and safe cartonboard solution, the only environmentally-friendly alternative to the non-recyclable multi-layer inner bag or resource-intensive aluminium. All ecological benefits like reusability and bio-degradability as well as the commercial arguments for sustainable packaging are preserved thanks to FOODBOARD™.

## Demand for labelling of barrier solutions on the shelf

The current information has attracted the attention of consumers, who now demand a solution that is recognisable on the grocery store shelf. After the ARD-Buffer broadcast nutrition expert Sabine Schütz answered questions of interested viewers in a live Facebook chat. During the chat, consumers also addressed the fact that a package with barrier cannot be differentiated from a package without barrier protection.

Due to the option of using the FOODBOARD™ logo on the package, food producers can clearly communicate their commitment to food safety and inform consumers about the functional barrier on the store shelf, thereby strengthen consumer trust.



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PLUSMINUS, 30 AUGUST 2016

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ARD-BUFFER, 8 NOVEMBER 2016

# AND THE WINNER IS ... FOODBOARD™ – PPI AWARD 2016 FOR MMK

FOODBOARD™ from MM Karton was selected as “The Fibre Based Packaging Innovation 2016” at the prestigious PPI Awards. The jury of experts thus honours our breakthrough innovation for safe and sustainable food packaging.

FOODBOARD™ represents a milestone for the cartonboard industry: an environmentally friendly cartonboard with completely new features which opens up packaging applications we could have never thought of before in the paper-based packaging world. The core component is an innovative barrier on the food contact side of the board which offers protection against the migration of defined unintended substances into the food. In addition, FOODBOARD™ delivers impressive results with slightly grease resistant attributes, keeps certain packed products fresh and crispy for longer and also protects against organoleptic influences. Franz Rappold, Member of the Board: “The award underscores the solution competence of Mayr-Melnhof Karton as well as our ongoing efforts to increase the benefit to our customers. However, the best reward for all of us is to actively sell FOODBOARD™, thus comprehensively supplying the market with our food safety solution and ensuring permanently high consumer confidence.” The official awards ceremony took place on 21 November 2016 in Brussels.

Since 2009, RISI, the leading information provider to the global pulp and paper industry, has been honouring outstanding achievements of companies and individuals with the PPI Awards. The widely noticed award has become the world’s most important prize in this sector. The submissions were judged by an independent panel of jury members, such as Rod Young and Esko Uutela (RISI), Richard Donovan (Rainforest Alliance), Nicholas Mockett (Morgan Capital), John Pollard (Unilever), Adam Bushong (Dell), as well as other experts from a wide range of fields.



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THE OFFICIAL PPI AWARDS  
CEREMONY TOOK PLACE ON  
21 NOVEMBER 2016 IN  
BRUSSELS.

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FOODBOARD™ TOOK THE  
PRIZE IN THE CATEGORY  
“FIBRE BASED PACKAGING  
INNOVATION”.

# BABYLOVE BY DM TRUST'S FOODBOARD™

For the drug store chain dm-drogerie markt, it's all about the human being. As a logical consequence, quality and product safety along the supply chain are top priorities. Since October 2016, the tea line of the dm store brand babylove has been gradually converted to FOODBOARD™, our solution for safe food packaging.

dm and its store brand babylove pursue a stringent quality principle: all babylove products live up to the highest standards and are regularly subjected to comprehensive tests by renowned, independent product testing institutes. Carefully tested ingredients guarantee premium quality. Consumers can depend on it, and babylove depends on FOODBOARD™ for its teas, because it too is subject to the highest quality requirements. When the problem of mineral oil migration became known, babylove started working on solutions in terms of the greatest possible consumer protection. Stefanie Schönherr, Sustainability Manager for the dm brands: "It was important to us that the solution would follow the sustainability principle –

recyclable, bio-degradable, made of renewable resources, and ideally with a portion of recycled material to save resources. In comprehensive long-term tests, we found that FOODBOARD™ and its properties satisfied our requirements. Only a functional barrier can offer an effective and ecologically friendly solution to the migration problem."

Before the material conversion, babylove used only packaging without a recycled content. Although virgin fibre cartonboard does not contain mineral oils, phthalates or DIPN it is no solution against cross-contamination from the environment and from secondary or corrugated packaging.

The 40-year company history of dm started with the opening of its first drug store in Karlsruhe, Germany, in 1973. Today, the chain operates 3,350 stores in twelve European countries and has become one of the largest and most successful drug store chains in Europe. dm established babylove as a store brand about 20 years ago. The brand's comprehensive product range includes personal care products, toys, and food items.



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THE BABYLOVE PRODUCT LINE BY DM INCLUDES TEA, WHICH THANKS TO FOODBOARD™ IS NOW PROTECTED FROM UNINTENDED SUBSTANCES.

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DM IS ONE OF THE LARGEST DRUG STORE RETAILERS IN EUROPE, NO. 1 IN GERMANY.

# THE MM GROUP'S SUSTAINABILITY REPORT

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Sustainable and responsible business practices and actions are an integral part of our corporate policy.

The current sustainability report of the Mayr-Melnhof Group illustrates this fact in all of its facets: its 53 pages give an overview of economic, ecological, and social measures and show how the MM Group takes responsibility for the environment, its employees, and society as a whole, and how its business model is geared toward sustainable production of cartonboard packaging.

What were the focus points and innovation measures of the past years? What goals were achieved in the considerate treatment of our natural resources?

The full sustainability report is available for download at [www.mm-karton.com](http://www.mm-karton.com) in the middle of 2017, a printed version can be pre-ordered from [sustainability@mm-karton.com](mailto:sustainability@mm-karton.com).



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THE CURRENT SUSTAINABILITY REPORT ILLUSTRATES  
THE ENVIRONMENTAL CONSCIOUSNESS THAT IS PART OF  
THE MM GROUP'S COMPANY CULTURE.

# MORE PERFORMANCE IN FLEXO PRINTING – MM FLEXOLINER™

With MM Flexoliner™ we now offer a second tailor-made quality in addition to MM X-Liner™ for the quickly growing high-quality flexo printing segment – in particular for South-Western and South-Eastern Europe.

## Tailor-made solutions for demanding applications

Flexo printing has undergone rapid technological development over the past two decades, and has replaced offset printing as the dominant printing process in the corrugated industry. The surface of MM Flexoliner™ is equipped with a special coating for flexo printing, giving it outstanding printing properties: its excellent trapping allows for superior results (pre-print as well as post-print), with bold colours at the highest printing speeds. Vincent Lambert, MMK Business Unit Director Liner: “Besides its great visual appearance, MM Flexoliner™ stands out because of exceptional runnability. We are convinced that this quality will set new standards for high-quality flexo printing.” MM Flexoliner™ is ideal for demanding applications in the brand and private label packaging segments and for shelf-ready solutions.

## Ideal for the South-Western and South-Eastern European market

By producing MM Flexoliner™ in our Slovenian MMK mill Kolicveo we guarantee short delivery times and flexible service especially for South-Western and South-Eastern Europe. Innovation is the top priority at Kolicveo. This fact has already resulted in many first-rate product developments and future-oriented investments, such as the development of MM Flexoliner™. Like all MMK qualities, MM Flexoliner™ is available with FSC® or PEFC™ certification.

If you have any questions, please feel free to contact our liner team:

[linersales@mm-karton.com](mailto:linersales@mm-karton.com)



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MM FLEXOLINER™ DELIVERS PRECISE RESULTS  
IN PRE- AND POST-PRINTING.

# IRAN – MMK: INTO THE FUTURE TOGETHER

To strengthen our trade relationships with Iran, a meeting hosted by MMK and Heinzl Sales was held on 24 October 2016 for Iranian customers and interested contacts. The event was entitled “A partnership continues” and was conducted in the economics department of the Austrian embassy in Teheran.

With our worldwide distribution network, we are able to offer our customers strategic advantages in addition to high supply security and the ability to react quickly. We sell either directly through our overseas team or through internationally recognized cartonboard traders and/or cartonboard agents. In Iran, we have won a reliable distribution partner in our joint venture with Heinzl Sales. The company is on location to react quickly and knows the market well.

When the UN/EU sanctions against Iran were partially lifted in January 2016, we joined Heinzl Sales and took the opportunity to gradually regain our past market position. In this context we issued an invitation to a joint event in the Austrian embassy at the end of October 2016. Around 60 interested representatives of the printing industry, buyers, traders, and end customers

took us up on our offer and attended. For us, the event was an excellent opportunity to exchange information with a broad customer base on location. We also gained valuable insights into the current needs of the market that will allow us to continue offering tailor-made products and services. Herbert Glatz, Director of Technical Customer Services MMK, gave a talk presenting the latest technical developments in printing and converting, thereby further increasing the benefit to attendees. The feedback was quite approving and very positive.

We would like to thank Khashoyar Pourmohsen, Managing Director of the joint venture of Mayr-Melnhof Karton & Wilfried Heinzl Teheran, and his entire team for the professional organisation and wish them continued success in their market activities.



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THE CONFERENCE ATTENDEES WERE DELIGHTED BY THE INTERESTING PRESENTATIONS.

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HERBERT GLATZ, DIRECTOR TECHNICAL CUSTOMER SERVICES MMK,  
ARNOUD SNELLEMAN, DIRECTOR BUSINESS UNIT MMK OVERSEAS, MONCEF REISNER,  
COO HEINZEL SALES, FRANZ RAPPOLD, BOARD MEMBER MMK, WERE IN IRAN  
FOR THE EVENT.



# WLC QUALITIES FROM THE GERNSBACH MILL – PERFECT FOR BLISTER APPLICATIONS

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Top scores for MMK recycled cartonboard from our German Gernsbach mill: the blister test proved all qualities to be perfectly suited to this demanding application.

## **Product visibility is a great advantage of the blister packaging**

Blister packages are transparent packages that allow the manufacturer to package products in pre-fabricated, custom-fit moulds. The product is presented in front of a cartonboard back that is usually printed with information, and held in place by a plastic foil mould, the actual blister. Even sensitive small parts are kept safe and protected from dislocation, abrasion, or breakage. The big advantage of this type of packaging is that the customer can see the product in its original appearance before buying it.

## **High demands on the cartonboard**

Successful manufacturing of blister packages is a highly complex process and depends on a number of factors such as machining parameters, proper storage conditions or room climate, and particularly on the materials used. The list of demands placed on the cartonboard is long: high plybond strength of the cartonboard layers, perfect coating adherence on the raw cartonboard, good ink absorption properties, excellent varnishing properties of the coated surface, good printability of the reverse side, etc. To seal the package, the blister is usually fused with the backing material by means of heat sealing. This is applied by activating the heat seal layer (blister coating) in the seams through

pressure and heat. The thicker a blister carton, the longer the sealing time needs to be under consistent conditions. If it is not adapted to the specific heat permeation time of the cartonboard, the necessary softening temperature of the coating cannot be reached and a proper seal cannot be achieved. Once the package is properly sealed, it can only be opened by destroying it, so it offers sufficient theft protection for the goods inside. With a deficient seal, the blister can partially or entirely peel away from the cartonboard without fibre tear.

## **Top scores for Multicolor Mirabell™, Supra™ and Printa™**

We have subjected our recycled cartonboard qualities to an extensive blister test (see information table on test set-up) and the result was very positive: all MMK WLC qualities showed perfect seals, and the GD2 qualities Multicolor Mirabell™ and Printa™ as well as the GT2 quality Supra™ from the German Gernsbach mill received top scores. All of them have broad, consistently strong fibre tear in the cartonboard after removal of the foil, which makes them ideal for blister packages.

Feel free to contact us if you are faced with a special challenge! Building on our decades of experience, we will work with you to develop the tailor-made blister packaging for your product.

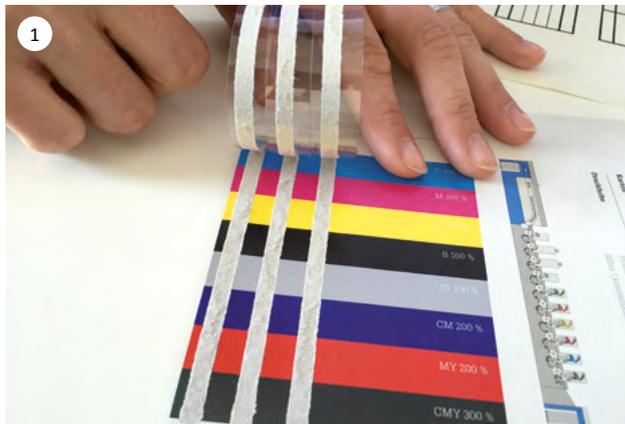
## MMK BLISTER TEST – THE TEST SET-UP

16 MMK cartonboard qualities were examined in the blister test. The following parameters were chosen:

<b>Printing machine</b>	KBA Rapida 105 Pro 6+L
<b>Printing ink</b>	Process inks, low-migration, silver
<b>Blister coating</b>	Actega G9/415 (standard coating)
<b>Anilox roller</b>	Anilox roller Haschur 20 cm <sup>3</sup> – ca. 8 gsm (standard) Anilox roller Haschur 17 cm <sup>3</sup> – ca. 6 gsm (minimum)
<b>Blister foils</b>	PET-G, PET-A, PVC
<b>Standard blister settings</b>	180 °C/5 bar/2 sec.

During the function test of blister suitability, the 16 MMK cartonboard qualities were printed with identical 5-color print designs (4C+Silver). At consistent machine speed (12,000 sheets/hour) and dryer setting (32 °C), a defined amount of each cartonboard was processed with a coating of 8 gsm (standard) and alternatively with a coating of 6 gsm (minimum). Subsequently, blister cards were made from all materials, which were fused with PET-G, PET-A, and PVC foils at the recommended standard settings (temperature 180 °C, fusion pressure 5 bar, fusion time 2 sec.) on a heat sealing machine by Brugger Feinmechanik GmbH.

A very good seal was achieved even with the minimal coating amount, however, the standard amount is recommended for consistent process reliability.



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BLISTERCARDS CAN BE ORDERED ON DEMAND AT:

[marketing@mm-karton.com](mailto:marketing@mm-karton.com)

# MMK ON LOCATION – THE KEY INDUSTRY EVENTS 3<sup>RD</sup>/4<sup>TH</sup> QUARTER 2016 – 1<sup>ST</sup> QUARTER 2017

One major event in the world of packaging stood out once again in fall 2016 in the fair and event schedule: the FachPack in Nuremberg.

## FachPack 2016

FACHPACK

27 TO 29 SEPTEMBER 2016,  
NUREMBERG

For three days, 1,600 exhibitors presented their products and services in the field of progressive packaging solutions. More than 500 innovations were exhibited over the course of the fair. The MM booth was a contact point for many interested visitors and a meeting place for new and existing business contacts. In order to give our customers and other interested visitors a better overview of our innovation and renovation projects, we

invited to a presentation on the first and second day of the fair: apart from new products, we shared information on current developments and trends in the cartonboard industry as well as new legal parameters and regulatory changes regarding safe food packaging. Of course we also reported on our barrier cartonboard FOODBOARD™.



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MM BOOTH AT THE FACHPACK 2016



### ECMA - CONGRESS

14 TO 17 SEPTEMBER 2016,  
ANTIBES / JUAN - LES - PINS

The ECMA Congress was hosted in Southern France under the motto “Big Data – The New Folding Carton Industry”. Numerous experts, among them Steven Van Belleghem (Author of “When Digital becomes Human”) and Matthijs van Leeuwen (Leiden Centre of Data Science, Netherlands) gave riveting talks illustrating how the constant exchange on the internet, the collection of all market and customer data, and artificial intelligence are changing the cartonboard industry. The speakers also explained some interesting approaches for companies to effectively using Big Data. MMK successfully launched the project “Digi 4.0” two years ago. Details will follow in the coming issues of Unfolded.



### PROPAK SUMMIT MEETING – FOOD CONTACT MATERIALS

6 OCTOBER 2016,  
VIENNA

A summit meeting of Austrian stakeholders in the issue of migration was held in Vienna: at the event hosted by PROPAK, the Austrian Association of Industrial Manufacturing of Paper and Cartonboard Products, a panel consisting of Dietmar Österreicher (BMG, Federal Ministry of Health), Christa Hametner (AGES, Austrian Agency for Health and Food Safety), Christian Schiffers (FFI, Professional Association of the Folding Carton Industry), and Ralph Derra (ISEGA, a leading research institute for paper, cartonboard, and food packaging) joined Horst Bittermann and Heinz Traussnig of Mayr-Melnhof Karton to discuss the issues surrounding food contact materials. The proposed German legislation regarding mineral oil migration (Printing Ink Ordinance and Mineral Oil Ordinance) and European developments were discussed in detail, as was the topic of migration testing and its practical challenges. The Austrian point of view clearly sees the need for a functional barrier to guarantee protection from mineral oils and other unintended substances.



### PTS PAPER & BOARD SYMPOSIUM

6 TO 7 SEPTEMBER 2016,  
MUNICH

Last year's PTS Paper & Board Symposium, which was attended by 140 participants, focused on the newest developments and innovations in paper and cartonboard business. The challenges are manifold: Digi 4.0 is changing the value chain, and paper and cartonboard will have to redefine their path into the future. In addition, the increased awareness of food safety consistently results in more stringent requirements for food packaging. MM Karton gave a much appreciated presentation on FOODBOARD™, the safe cartonboard solution for protecting food from mineral oil migration and other unintended substances. Production of FOODBOARD™ in the Austrian mill at Frohnleiten has noticeably gained momentum. We are proud that our research and development work is allowing us to present a solution to the migration problem at many trade fairs and events such as the PTS Paper & Board Symposium.



DIE AKADEMIE  
FRESENIUS

### FRESENIUS PRACTICE DAYS: CONFORMITY WORK FOR FOOD PACKAGING

6 TO 7 OCTOBER 2016,  
COLOGNE

In early October 2016, experts in the field of quality assurance, law, and product development met with representatives of authorities and end customers in the food and packaging industry for the Fresenius workshop to discuss the health safety of food packaging. Central topics were complex manufacturing chains, as well as binding formulations of tests and standards and their legal significance.



SVI CONFERENCE

10 NOVEMBER 2016,  
ZURICH

Last year's conference of the Swiss Packaging Institute (SVI) was entitled "Controversial packaging – protective function or ecology" and was dedicated to the tension surrounding packaging materials. On the one hand, a folding carton must fulfil several functions (protection, storage, transport, sales, and information functions) in the product design, on the other hand it should and must satisfy ecological demands. Trying to accommodate all of these components simultaneously results in tension. The question is: how much compromise is acceptable? With talks, discussions, and practical examples, the conference addressed this question and endeavoured to find approaches to solutions that would satisfy all demands. We were able to respond to one of the greatest challenges – the combination of product safety and natural resources – by presenting our innovation FOODBOARD™.



ALL4PACK

14 TO 17 NOVEMBER 2016,  
PARIS

A large number of visitors from inside the industry came to see around 1,600 exhibitors in Paris in mid-November 2016. Centre stage at the All4Pack, one of France's most important packaging fairs, was given to current trends, developments, and innovations in the packaging business. The promise of the fair's title "Let's be creative" was kept in every way: the participants presented creative and unusual packaging solutions as well as astonishing refinements and designs. In an economy marked by fierce competition, innovations are crucial for adding value and as a growth driver. With France, Mayr-Melnhof Karton is increasingly focusing on one of the most important countries in the European folding carton industry. The All4Pack proved to be an exciting meeting point for exchanging ideas with our international customers and partners of the packaging and cartonboard industry.



RISI EUROPEAN CONFERENCE

6 TO 8 MARCH 2017,  
AMSTERDAM

Under the motto "Helping the forest products industry make better decisions", decision-makers from the industry met in early March 2017 to discuss the current situation in the fibre-based packaging industry and to provide comprehensive impetus. Frank Heidlberger, Director Global Supply Chain at McDonald's, gave a compelling presentation entitled "Transforming Packaging for a Transforming World". In order to successfully meet the challenges of the future, one thing is particularly decisive: Packaging must be adapted in terms of shape, material and design to meet the current needs of customers, employees, and

the environment. It is the only way a company can succeed in carrying its brand message successfully to the consumer. The entire supply chain is required for this holistic realignment. In his speech "The European Economy – Divided by Brexit, United by its other Problems" Andrea Boltho, university professor at Oxford, clearly states that we are entering a new era: "From Stability to Instability". The stable conditions of the last 70 years are part of the past; instability is becoming the norm (new trade barriers, high level of debt, etc.).

# EXCELLENT TOP™ 1D – TAILOR-MADE FOR 1D-CODES, MANDATORY FOR PHARMACEUTICAL EXPORTS TO CHINA

The outstanding laser and inkjet coding properties of the new GC2 quality Excellent Top™ 1D make it ideal for precise 1D codes, but also for the simpler 2D matrix codes. A tailor-made quality for all pharmaceutical products in all regions across the globe.

## Perfect for 1D codes and 2D matrix codes

Excellent Top™ 1D has a special top coating that gives it optimal laser and inkjet coding properties, allowing for highly precise 1D codes and 2D matrix codes. The German Forschungsgesellschaft Druck e.V. (Graphic Technology Research Association FOGRA) has confirmed this fact. The development of Excellent Top™ 1D was triggered by new regulations for serialisation in the pharmaceuticals industry to guarantee complete product traceability and reliable counterfeit protection.

## New regulations in the pharmaceuticals industry

Pharmaceutical companies are confronted with new, regionally differentiated regulations for labelling and serialisation in the international market. Apart from the provisions of Directive 2011/62/EU (Falsified Medicines Directive), which have to be implemented in the European Union starting 2019, the labelling regulations for sales in China demand particular attention: since 2015, all pharmaceutical products sold in China have to be equipped with a one-dimensional 128C bar code, the so called Electronic Drug Monitoring Code (EDMC).

## Full customer service from the Baiersbronn mill

Our laboratory in the virgin fibre mill in Baiersbronn, Germany, is equipped with special facilities for testing coding and readability under real-life conditions.

Baiersbronn is a strategically perfect location for access to the Central European markets. Short transport routes guarantee flexible delivery service and contribute to reaching sustainability targets. Weekly production of the most important grades and grammages also allows for very short delivery times.

As confirmed by an external institute, the MMK GC qualities have optimal laser and inkjet coding properties for 2D matrix codes. World leading manufacturers of pharmaceutical products rely on MMK qualities for complying with legal requirements across national borders.

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Mandatory in China since 2015:		Mandatory in the EU starting Q1/2019:
1D CODE		2D MATRIX CODE
		
One-dimensional bar code – larger space requirement (min. 8 mm x 32 mm)	SPACE REQUIREMENT	Checkerboard structure – lots of information on minimum space (9,9 mm x 9,9 mm)
No error correction – information contained only once	ERROR CORRECTION	With error correction – information is readable even with minor damage to coding
DIN EN ISO/IEC 15416	CODE PRINTING QUALITY REQUIREMENTS	DIN EN ISO/IEC 15415

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COMPARISON 1D CHINA CODE  
WITH 2D MATRIX CODE

# ITALIAN PASTA IN A NATURAL LOOK

## THE FAMOUS PRODUCER DE MATTEIS RELIES ON ACCURATE™ TOP NATURAL

Our new FBB quality Accurate™ Top Natural, produced at the Dutch MMK mill in Eerbeek, has succeeded in establishing itself as ideal cartonboard grade for a natural and rustic look. For the Italian converter Nuceria Adesivi it is therefore the material of choice for emphasizing the natural aspect of the pasta brand Grano Armando from De Matteis at the point of sale.

Nuceria Adesivi is an enlightened company for whom creating the best possible partnership with their customers is of the utmost importance. The company is capable of identifying solutions tailored to their requirements. Paola Iannone, sales director of Nuceria Adesivi: “We are intensively monitoring new trends to find the right packaging solution in a valuable exchange with the customer. For our customer De Matteis and its brand Grano Armando Pasta, Accurate™ Top Natural is the perfect choice that matches the product and represents the brand values.”

De Matteis, a leading global player in the pasta industry, is more than a company. It is an ambitious project that respects nature and protects the most authentic rural values. Using only Italian wheat, De Matteis is setting an example by creating pasta with a 100 % Italian integrated production chain. De Matteis has always committed itself to reducing the environmental impact through the use of innovative materials. Paola Iannone of Nuceria Adesivi: “The material is an expression of attention to sustainability and the environment, the values that underline the whole Grano Armando project. In close cooperation with the customer we succeeded in finding the right material to highlight the naturalness of the brand. In Nuceria Group we do not simply ask our customers what they want, we do not only

present design and prototypes to achieve the best packaging. We work to really enrich the product and the lives of those who will use it – Just as it happened with Grano Armando.”

With its matt surface and its special roughness, Accurate™ Top Natural delivers a strong visual as well as sensory performance and is a strategic asset in the sales phase. In the past, a rustic look was achieved by printing on the reverse side. Accurate™ Top Natural can score by printing the front side, and its advantage: No set-off of the printing ink, the print image is reproduced perfectly.

Accurate™ Top Natural is suitable for direct food contact on the top and reverse side, making it the perfect quality for applications in the food sector. We are delighted that the new cartonboard grade has been welcomed with such a positive response.

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THE PRODUCTS OF THE GRANO ARMANDO  
BRAND STAND FOR SUSTAINABILITY.



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- Embossing
- Dispersion varnishing, full surface, satin finished

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