

PRODUCT GUIDE

100% PAPER - 100% RECYCLABLE - FSC®-CERTIFIED.





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DISPA®

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DISPA®

DISPA® are the eco-friendly paper boards for screen and digital printing. They are made of FSC®-certified paper (FSC® C127595) and are 100% recyclable. Thanks to a non-directional core structure, DISPA® paper boards offer not only an optimal level of flatness and excellent dimensional stability, they are also lightweight. One of the board's major advantages over corrugated board is its equally high level of rigidity – lengthwise and crosswise.

DISPA® paper boards' outstanding properties are due to their unique structure and, as a paper product, the boards are 100% eco-friendly. Disposing of the paper boards as waste paper is easy and inexpensive.

DISPA® paper boards are an ideal printing substrate and perfectly suited to die-cutting or processing with CNC machines. They are the perfect solution for indoor promotion campaigns, ceiling-mounted suspended signs, display stands and POS/POP applications as well as for short-term outdoor advertising and signage (DISPA®outdoor).

Sustainable involvement and environmental protection have always been amongst the essential corporate objectives at 3A Composites. The minimisation of risks for man and environment as well as the reduction of environmental pollution through careful and efficient utilisation of resources is part of the corporate philosophy.

Our production site in Osnabrück, Germany is certified to DIN EN ISO 14001, the standard defining internationally recognised requirements for environmental management. In addition, one of our key aims is the strong linkage of the management systems for quality (DIN EN ISO 9001), health and safety (DIN ISO 45001) and energy management (DIN EN ISO 50001).

The site has also gone through all the stages for FSC® certification (GFA-COC-002828). The production process, audited by FSC®, ensures that only FSC® certified paper is used in the production of our DISPA® boards and that non-certified, i.e. paper which has not been monitored, is not included. The FSC® label stands for a continuous and credible tracking process. It is a clear indicator that the paper comes from responsible forestry. The forest management is in compliance with social, economic and environmental requirements.

Ongoing efforts to reduce CO₂ emissions by scaling back energy and water consumption, increasing productivity and avoiding waste are being made at the DISPA® production site. CO₂ emissions and energy consumption have been successfully reduced by more than 50% since 2014. In this same period, 45% less waste has been generated. We have been using green electricity at our production site for several years; 100% of this electricity is from hydropower and has been labelled as certified sustainable since 2019.

We have also set ourselves the goal of reducing packaging materials: the proportion of packaging materials containing plastic has been reduced by a third since 2018. DISPA® paper boards are packed with great care; most of the packaging material is already 100% recycled material.

DISPA® paper boards are subject to the highest quality standards and stringent monitoring during production. Our top priority is to ensure that DISPA® paper boards do not contain any hazardous substances.

Read more about our commitment to sustainability starting on page 8.

DISPA® - 100% PAPER - 100% RECYCLABLE - FSC® CERTIFIED.

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DISPA®

100% PAPER - 100% RECYCLABLE - FSC®-CERTIFIED.

CHARACTERISTICS

- 100% paper
- 100% recyclable simple and inexpensive disposal as waste paper
- FSC®-certified (FSC® C127595)
- Unique paper core thanks to a non-directional core structure, DISPA® paper boards offer not only an optimal level of flatness and excellent dimensional stability, they are also lightweight.
- Equally high level of rigidity lengthwise and crosswise is one of the major advantages over corrugated cardboard
- Outstanding printing results
- Easy options for processing

APPLICATION

- Displays (POS/POP)
- Signage | Lettering
- Shop design | Shop window decoration
- Interior design | Furniture
- Partitions | Cladding
- Exhibition design and construction
- Model making
- Short term promotional campaigns

PROCESSING

- Digital printing | Screen printing
- Laminating
- Painting | Spray painting | Lacquering
- Cutting | Die cutting | Plotting
- Laser cutting
- Punching
- Gluing
- Drilling
- Folding (V-groove)









| PRODUCTS | | | DISPA® | | DISPA®outdoor | DISPA®canvas | | |
|----------------------------------|------------|----------------------------------|--------------------------|------------------------------|---------------------------|------------------------------|--|--|
| DIMENSIONS AND WEIGHT | | | | | | | | |
| Thickness | | mm | 2,4 | 3,8 | 2,2 | 3,8 | | |
| Weight per unit area | EN 29073-1 | g/m² | 640 | 840 | 760 | 775 | | |
| Sheet sizes mm | | as per delivery programme | | | | | | |
| Sheet width tolerance n | | mm | ± 5 | | | | | |
| Sheet length tolerance mm | | ± 5 | | | | | | |
| Sheet thickness tolerance mm | | | ± 0,4 | | | | | |
| Weight per unit area tolerance % | | % | ± 5 | | | | | |
| Tolerance in right angle mm/i | | mm/m | ± 1 | | | | | |
| CORE | | | | | | | | |
| Embossed paper | | white | | wet-strength, brown-white | white | | | |
| SURFACE | | | | | | | | |
| Layers | | brilliant white, coated paper | | wet-strength white paper | embossed, coated paper | | | |
| Colour value | CIELAB | | L*=94 a*=+0,5 b*=1,5 | | L*=92 a*=-0,1 b*=2,0 | L*=92 a*=+0,5 b*=-0,3 | | |
| Smoothness | ISO 5627 | Bekk S | 630 | | 130 | - | | |
| TECHNOLOGICAL VALUES | | | | | | | | |
| Bending strength | EN 310 | N/mm² | 5,0 | 4,0 | 8,0 | 3,0 | | |
| pH-value (Neutral = 7) | ISO 6588 | , | 9,0 | | 10 | 9,0 | | |

Note: These technical data of our products are typical ones for DISPA®.

The actually measured values are subject to production variations.

For more details on the processing of DISPA®, please contact our technical team.

SUSTAINABILITY

MISSION: TOGETHER. RESPONSIBLE.

Sustainability is at the core of everything we do. Our corporate ecological commitment is summed up by the MISSION: TOGETHER. RESPONSIBLE. As we also apply and comply with this mission in regard to our products, we have created a classification system. The five different categories in our FIVE-DOT-MISSION system indicate the factors with the greatest impact on sustainability. Our intention is to offer our partners guidance with their purchasing decision-making and to provide a transparent system. A system which focuses on the use of materials, the CO₂ content, the product life cycle and, of course, recycling, a topic of particular relevance for our products. Our FIVE-DOT-MISSION makes an assessment of a product on the basis of five categories and awards points per category, the product is then assigned to one of the five coloured DOTs. By this means we achieve a transparent, quick valuation logic which we can also use to gauge product innovation and improvement at 3A Composites.

THE FIVE-DOT CATEGORIES ARE:



1. BIOBASED CONTENT

Depending on the product, different raw materials are used to manufacture our panels. In this case, we look at the percentage of renewable raw materials used in

our products. Our aim is to increase the percentage whenever possible and appropriate.



2. RECYCLED CONTENT

The industry selects recycled raw materials for use in the manufacture of new products which also fulfil requirements such as fire ratings, processing prerequisites

and customer expectations in terms of functionality and appearance. This category is where we gauge the proportion of high quality recycled raw material in our products' total material input.



3. FOSSIL CO., BOUND IN THE MATERIAL

This category shows the weight of fossil CO_2 embedded in our panels. Differences here are principally due to the raw material type and origin, the density, the composi-

tion and the proportion of recycled content.



4. PRODUCT LIFE CYCLE

The plastic sheets and composite panels we produce are used by our customers for a longer period of time. In contrast to products used in the short term, these longer-

term alternatives make an active contribution to saving resources. In this category we show our panels' average service life. Material properties result in disparities, so life cycles range from <1 year to even >30 years.



5. RECYCLABILITY

One of the most important aspects of sustainability is contributing to environmental protection by saving valuable raw materials and avoiding waste. Unlike the second

category "recycled content", in this assessment category, we show options for recycling the panels after they have been in use. There are already, for instance, established recycling loops for paper and metals. At some production sites, the material can already be returned, so that material for new panels can be created from it. As a company, we came to the conclusion that thermal recycling does not seem sustainable enough, so it is not included in our FIVE-DOT classification. Instead, we are actively working with partner companies to establish a closed-loop, sustainable and future-oriented recycling economy.

As many as 3 points can be achieved in each of the categories presented, totalling a maximum of 15 points. According to the total number of points achieved (1-15), the FIVE-DOT classification is conducted using the following colour gradation.











Transparency is important to us! We will review the product assessment annually to see in which areas the product can be improved. We have set ourselves the goal of achieving the majority of our sales with products which achieve a rating of ≥ 7 points in the FIVE-DOT classification by 2030.

Join us on our sustainable mission!



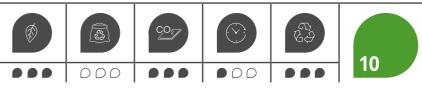


SUSTAINABILITY

DISPA® FIVE-DOT-MISSION

DISPA®, the eco-friendly paper boards made of FSC®-certified paper, have been assessed in line with the criteria described above. The product family currently achieves a FIVE-DOT classification of 10 points in total.

DISPA® | DISPA® outdoor | DISPA® canvas



BIOBASED CONTENT

Our eco-friendly DISPA® boards are made from 100% FSC® certified paper which means they are made from 100% renewable raw materials. FSC® certification ensures that the wood required for paper production comes from sustainable, environmentally sound and responsible forest management.

All raw materials used in our DISPA® paper boards also comply with the requirements in the current version of the European Union's Chemicals Regulation (REACH). In particular, DISPA® paper boards are free of any of the substances listed in the current version of the ECHA Candidate List of Substances of Very High Concern (SVHC). The paper boards do not contain any toxic substances or heavy metals that may harm the environment or create health risks.

FOSSIL CO, BOUND IN THE MATERIAL

The use of paper as the sole component of the paper board means that no fossil CO₂ is bound in the material. DISPA® paper boards consist solely of renewable raw materials.

PRODUCT LIFE CYCLE

DISPA® is ideally suited as a sustainable solution for short- and medium-term seasonal advertising and signage indoors, as well as for short-term outdoor use (DISPA®outdoor).

RECYCLABILITY

All DISPA® paper boards are fully recyclable, i.e. the paper is returned to the recycling loop and used to produce new material. An established, closed-loop recycling system already exists for this purpose. The entire DISPA® product family can be easily and inexpensively disposed of as waste paper.



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DISPA®

THE CLASSIC - IN TWO DIFFERENT THICKNESSES.

DISPA® is a multi-layer paper board, available in two different thicknesses: 2.4 mm (3-layer) and 3.8 mm (5-layer). The embossed paper core ensures a high-level of rigidity and flatness. DISPA® is made of FSC®-certified paper and can be completely recycled. The sheets convice with brilliant white and smooth surfaces, which are perfect for screen and digital printing. With DISPA® you can reach amazing printing results.

CHARACTERISTICS

- Thickness 2.4 mm (3-layer) and 3.8 mm (5-layer)
- Brilliant white with a smooth surface
- Amazing printing results

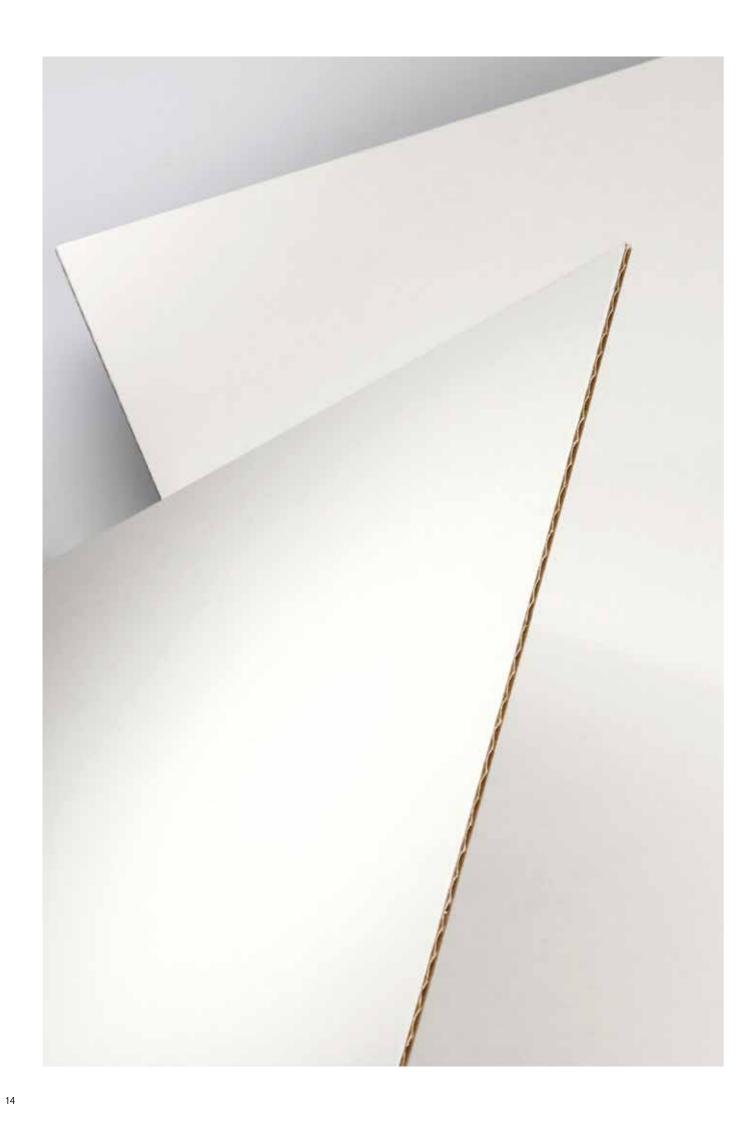
PROCESSING

- Digital printing | Screen printing
- Laminating
- Painting | Spray painting | Lacquering
- Cutting | Die cutting | Plotting
- Laser cutting
- Punching
- Gluing
- Drilling
- Folding (V-groove)

APPLICATION

- Displays (POS/POP)
- Signage | Lettering
- Shop design | Shop window decoration
- Interior design | Furniture
- Partitions | Cladding (only thickness 3.8 mm)
- Exhibition design and construction
- Model making
- Short term promotional campaigns

Vhite



DISPA®outdoor

FOR SHORT-TERM OUTDOOR APPLICATIONS.

DISPA®outdoor is a multi-layer paper board, available in thickness 2.2 mm (3-layer), for short-term outdoor applications. The embossed paper core ensures a high-level of rigidity and flatness. DISPA®outdoor is made of FSC®-certified paper and is 100% recyclable. Thanks to the smooth white surfaces, DISPA®outdoor convinces using direct digital printing or screen printing.

CHARACTERISTICS

- Thickness 2.2 mm (3-layer)
- Smooth white surfaces
- For short-term outdoor applications

PROCESSING

- Digital printing | Screen printing
- Laminating
- Painting | Spray painting | Lacquering
- Cutting | Die cutting | Plotting
- Laser cutting
- Punching
- Gluing
- Drilling
- Folding (V-groove)

APPLICATION

- Displays (POS/POP)
- Signage | Lettering
- Shop design | Shop window decoration
- Exhibition design and construction
- Model making
- Short term promotional campaigns



DISPA®canvas

WITH CANVAS TEXTURE - FOR SPECIAL VISUAL EFFECTS.

DISPA® canvas is a multi-layer paper board, available in thickness 3.8 mm (5-layer). The sheets featuring high-quality covering layers on both sides in "canvas" look. The 5-layer premium board with embossed core ensures a high-level of rigidity and flatness. DISPA® canvas is made of FSC®-certified paper and is fully recyclable. Thanks to the canvas texture, impressive visual effects can be realised.

CHARACTERISTICS

- Thickness 3.8 mm (5-layer)
- Canvas texture
- For special visual effects

PROCESSING

- Digital printing
- Painting | Spray painting | Lacquering
- Cutting | Die cutting | Plotting
- Laser cutting
- Punching
- Gluing
- Drilling
- Folding (V-groove)

APPLICATION

- Displays (POS/POP)
- Signage | Lettering
- Shop design | Shop window decoration
- Interior design | Furniture
- Exhibition design and construction
- Model making
- Short term promotional campaigns

































100% PAPER 100% RECYCLABLE

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