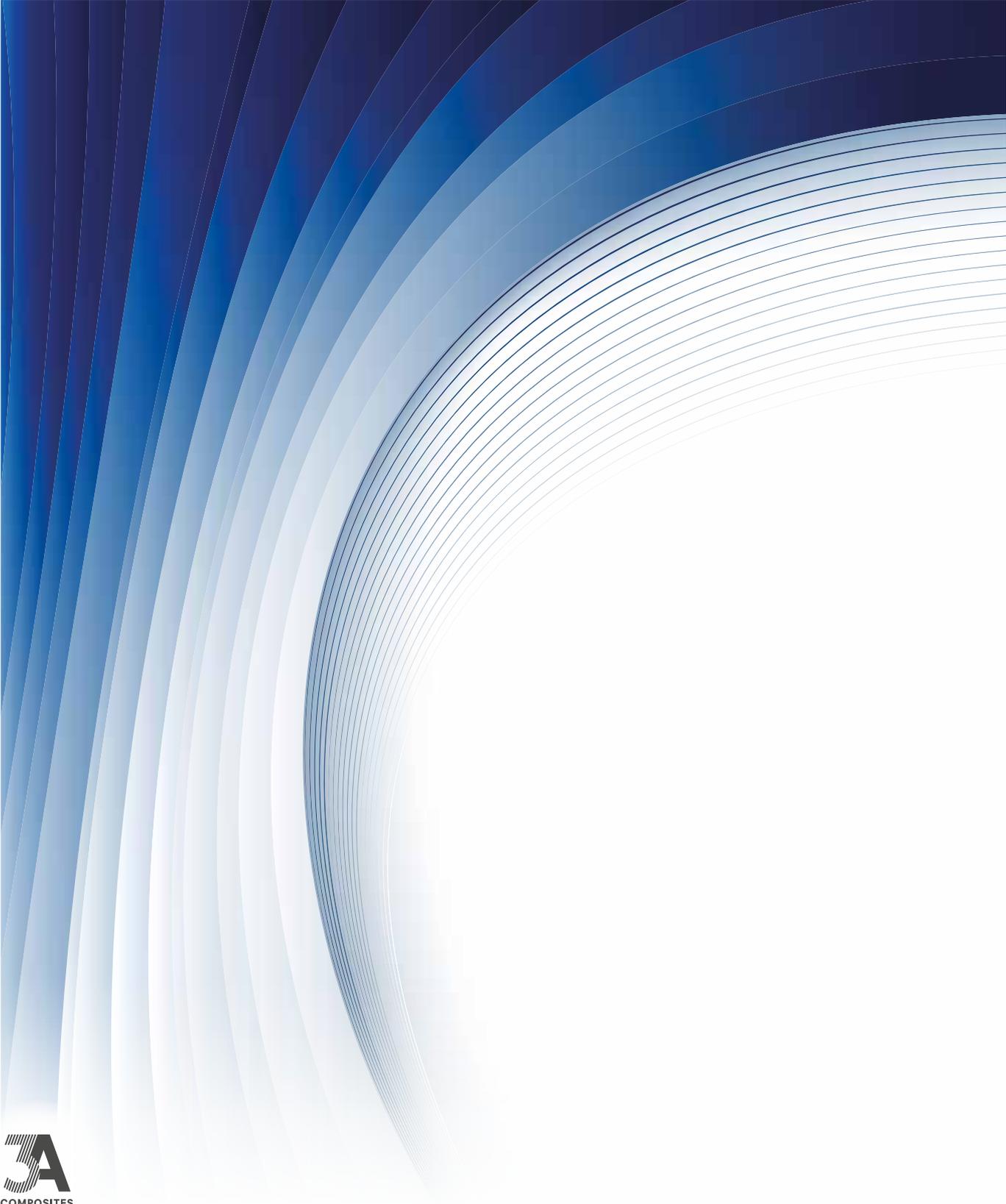




# DISPA<sup>®</sup>

## PRODUCT GUIDE

100% PAPER – 100% RECYCLABLE – FSC<sup>®</sup>-CERTIFIED.





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## DISPA®

DISPA® are innovative paper boards for screen and digital printing. They are made of FSC®-certified paper (FSC® C127595) and are fully 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 the visual surface quality.

The unique structure of DISPA® offers outstanding properties. The boards are an ideal printing substrate and well suited to die cutting or processing with cutting plotters. They are the perfect solution for indoor promotion campaigns, ceiling-mounted suspended signs, display stands and POS/POP applications. As a paper product, they can be easily and inexpensively disposed of as waste paper through the national waste paper collection systems.

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 ISO 14001, the standard defining internationally recognised requirements for environmental management. In addition, we have a linkage of the management systems for quality (ISO 9001), health and safety (ISO 45001) and energy management (ISO 50001) for many years.

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 paper is not included. For the production of DISPA® we solely use FSC®-certified paper. The FSC® label stands for a continuous tracking process. It is a clear indicator that the paper comes from responsibly managed forests or from other controlled sources. The forest management is in compliance with social, economic and environmental requirements.

Ongoing efforts to reduce CO<sub>2</sub> emissions by scaling back energy and water consumption, increasing productivity and avoiding waste are being made at the DISPA® production site. CO<sub>2</sub> 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 electricity from 100% certified hydropower for several years.

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.

# 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.
- One of the board's major advantages over the corrugated board is the visual surface quality
- 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)



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

| PRODUCTS |  | DISPA® | DISPA®re | DISPA®canvas |
|----------|--|--------|----------|--------------|
|----------|--|--------|----------|--------------|

### DIMENSIONS AND WEIGHT

|                                |                             |                           |     |      |     |
|--------------------------------|-----------------------------|---------------------------|-----|------|-----|
| Thickness                      | mm                          | 2.4                       | 3.8 | 3.8  | 3.8 |
| Weight per unit area           | EN 29073-1 g/m <sup>2</sup> | 640                       | 840 | 1005 | 775 |
| Sheet sizes                    | mm                          | as per delivery programme |     |      |     |
| Sheet width tolerance          | mm                          | ± 5                       |     |      |     |
| Sheet length tolerance         | mm                          | ± 5                       |     |      |     |
| Sheet thickness tolerance      | mm                          | ± 0.4                     |     |      |     |
| Weight per unit area tolerance | %                           | ± 5                       |     |      |     |
| Tolerance in right angle       | mm/m                        | ± 1                       |     |      |     |

### CORE

|                |  |       |      |       |
|----------------|--|-------|------|-------|
| Embossed paper |  | white | grey | white |
|----------------|--|-------|------|-------|

### SURFACE

|              |                 |                               |                              |                           |
|--------------|-----------------|-------------------------------|------------------------------|---------------------------|
| Layers       |                 | brilliant white, coated paper | white, coated paper          | embossed, coated paper    |
| Colour value | CIELAB          | L*=94   a*=+0.5   b*=1.5      | L*=88.4   a*=+0.07   b*=0.21 | L*=92   a*=+0.5   b*=-0.3 |
| Smoothness   | ISO 5627 Bekk S | 630                           | 41                           | -                         |

### TECHNOLOGICAL VALUES

|                        |                          |     |     |     |     |
|------------------------|--------------------------|-----|-----|-----|-----|
| Bending strength       | EN 310 N/mm <sup>2</sup> | 5.0 | 4.0 | 4.3 | 3.0 |
| pH-value (Neutral = 7) | ISO 6588                 | 9.0 | 8.0 | 8.0 | 9.0 |

Note: These technical data of our products are typical ones for DISPA®. The actually measured values are subject to production variations.

# 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 CO<sub>2</sub> 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<sub>2</sub> BOUND IN THE MATERIAL**  
This category shows the weight of fossil CO<sub>2</sub> embedded in our panels. Differences here are principally due to the raw material type and origin, the density, the composition 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.

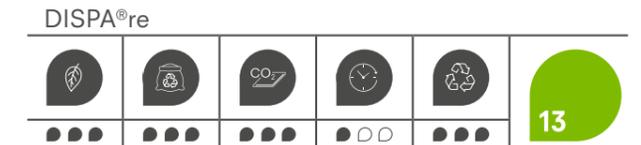
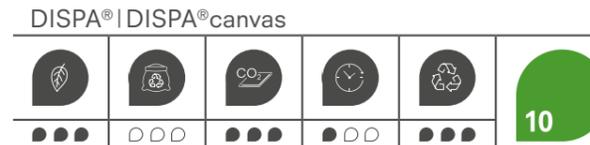
Join us on our sustainable mission!



# SUSTAINABILITY

## DISPA® FIVE-DOT-MISSION

DISPA®, the innovative paper boards made of FSC®-certified paper, have been assessed in line with the criteria described above. The products currently achieve a FIVE-DOT classification with a total of 10 respectively 13 points.



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

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.

**RECYCLED CONTENT**  
 The core as well as the cover layers of our DISPA®re sheets are made of FSC®-certified recycled paper.

**FOSSIL CO<sub>2</sub> BOUND IN THE MATERIAL**  
 DISPA® paper boards consist of renewable raw materials. The use of paper as the sole component of the paper board means that no fossil CO<sub>2</sub> is bound in the material.

**PRODUCT LIFE CYCLE**  
 DISPA® is ideally suited as a solution for short- and medium-term seasonal advertising and signage indoors.

**RECYCLABILITY**  
 All DISPA® paper boards are fully recyclable, i.e. the paper is returned to the recycling loop and hence used to produce new recycled paper. 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 through the national waste paper collection systems.





# 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 convince 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
- 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



White



# DISPA<sup>re</sup>

CORE AND COVER LAYERS MADE OF RECYCLED PAPER.

DISPA<sup>re</sup> is a multi-layer paper board, available in the thickness 3.8 mm (5-layer) which features smooth, white surfaces. The embossed paper core, already well-known in DISPA<sup>®</sup>, ensures the board is exceptionally rigid and outstandingly flat. In the production of DISPA<sup>re</sup>, we use only FSC<sup>®</sup>-certified recycled paper for both the covering layers and the core. The boards are fully recyclable and can be easily and inexpensively disposed of as waste paper through the national waste paper collection systems. Point-of-Sale displays, hanging signage in a supermarket or shop, seasonal indoor advertising campaigns - there is virtually no limit to your creativity.

## CHARACTERISTICS

- Thickness 3.8 mm (5-layer)
- Smooth and white surface
- Cover layers and core made of recycled paper

## PROCESSING

- Digital printing | Screen printing
- Laminating
- Painting | Spray painting | Lacquering
- Cutting | Die cutting | Plotting
- 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



White



## DISPA<sup>®</sup>canvas

WITH CANVAS TEXTURE – FOR SPECIAL VISUAL EFFECTS.

DISPA<sup>®</sup>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<sup>®</sup>canvas is made of FSC<sup>®</sup>-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
- 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



White





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