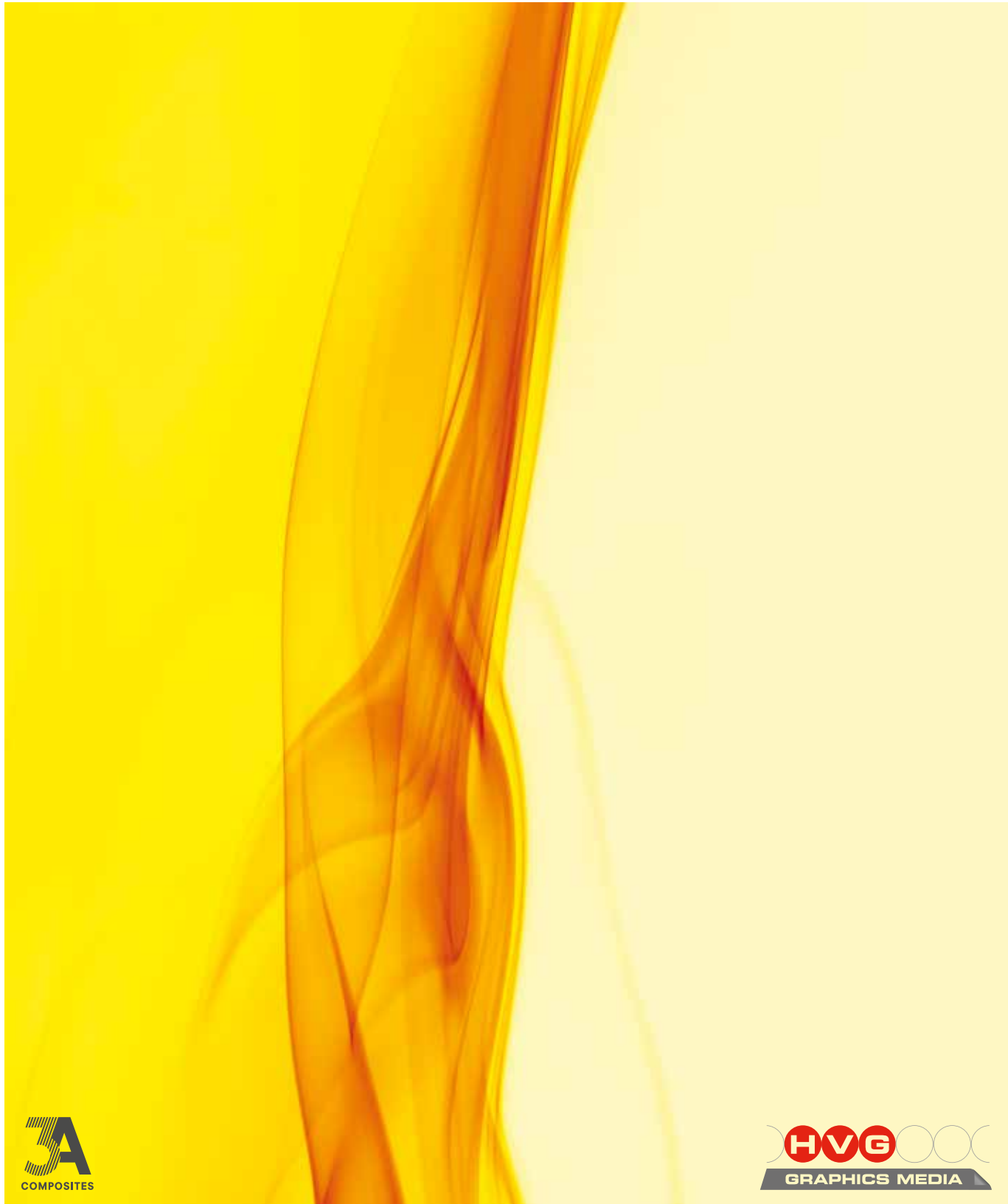


# FOAM-X<sup>®</sup>

## PRODUCT GUIDE

THE INDOOR FOAMBOARD WITH RECYCLED PAPER COVER LAYERS: A REAL ALL-ROUNDER.

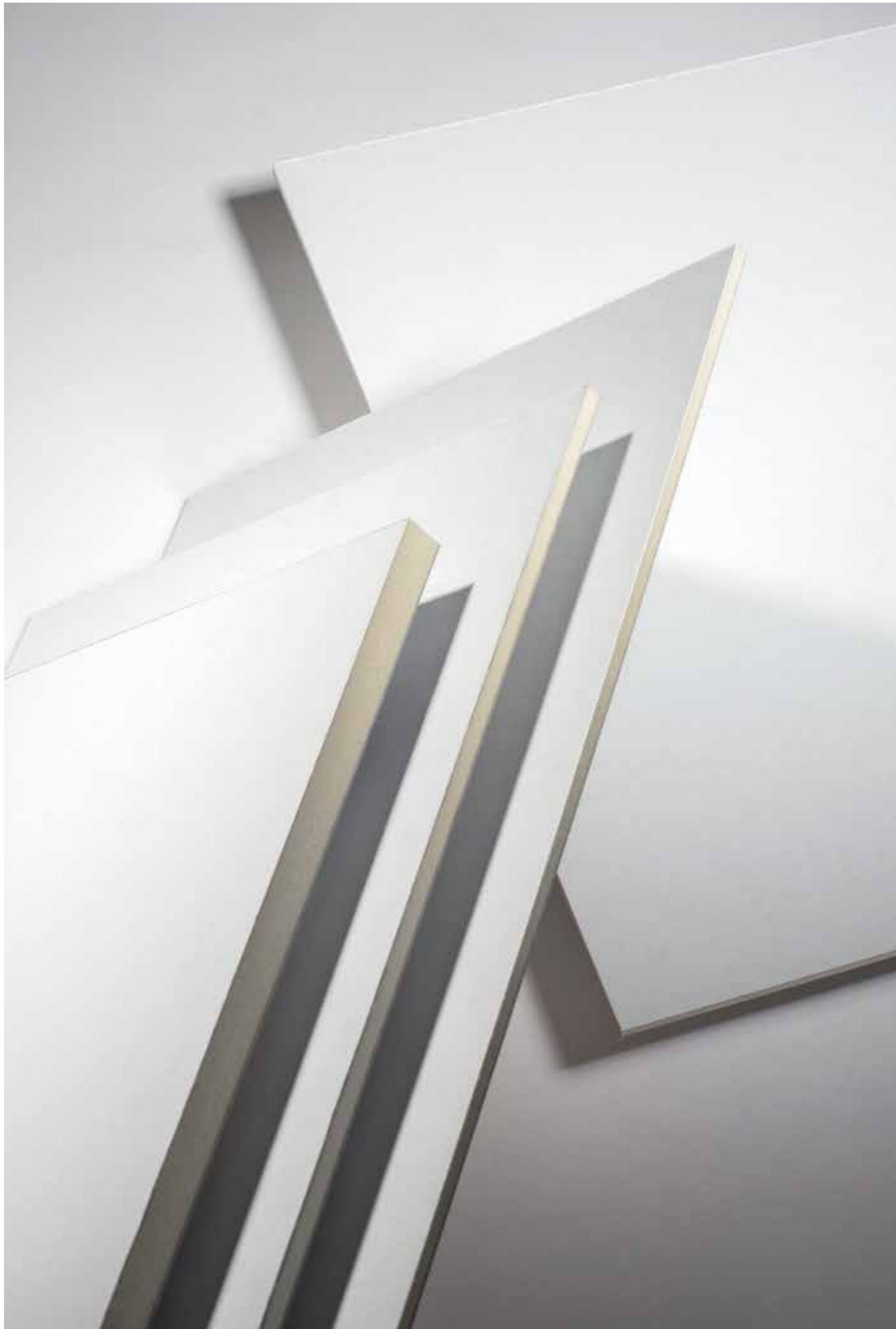




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## FOAM-X®

FOAM-X®, a lightweight foamboard with a polyurethane foam core and coated multi layered recycled paper cover layers, is suitable for indoor applications. The paper used in our production is FSC® certified recycled paper (FSC® C127595).

The foamboard provides an ideal weight stability ratio. Additionally, FOAM-X® can be processed very easily with manual tools.

FOAM-X® foamboards are particularly suitable for simple short term, indoor applications such as POS/POP displays, decorative ceiling-mounted suspended signs and picture frames (mounting options).

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 FOAM-X® foamboards and that non-certified, i.e. paper which has not been monitored, is not included.

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 FOAM-X® 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 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. FOAM-X® foamboards are packed with great care; most of the packaging material is already 100% recycled material.

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

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

**FOAM-X® – THE INDOOR FOAMBOARD WITH RECYCLED PAPER COVER LAYERS: A REAL ALL-ROUNDER.**

# FOAM-X®

THE INDOOR FOAMBOARD WITH RECYCLED PAPER COVER LAYERS:  
A REAL ALL-ROUNDER.

## CHARACTERISTICS

- Coated multi layered recycled paper cover layers
- FSC®-certified (FSC® C127595)
- Ideal weight stability ratio
- For short-term, simple indoor applications

## APPLICATION

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

## PROCESSING

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

## STANDARD COLOUR



## DIMENSIONS AND WEIGHT

|                           |            |                  |                           |     |     |
|---------------------------|------------|------------------|---------------------------|-----|-----|
| Thickness                 |            | mm               | 3                         | 5   | 10  |
| Weight per unit area      | EN 29073-1 | g/m <sup>2</sup> | 510                       | 580 | 780 |
| Sheet sizes               |            | g/m <sup>2</sup> | as per delivery programme |     |     |
| Sheet width tolerance     |            | mm               | ± 1                       |     |     |
| Sheet length tolerance    |            | mm               | ± 1 – 10                  |     |     |
| Sheet thickness tolerance |            | mm               | ± 0,6                     |     |     |
| Tolerance in right angle  |            | mm/m             | ± 1                       |     |     |

## CORE

|                       |                            |   |     |  |  |
|-----------------------|----------------------------|---|-----|--|--|
| Rigid foam            | polyurethane natural color |   |     |  |  |
| Closed cell structure |                            | % | >95 |  |  |

## SURFACE

|        |  |  |  |  |  |
|--------|--|--|--|--|--|
| Layers | coated multi layered recycled paper cover layers |  |  |  |  |
|--------|--|--|--|--|--|

## TECHNOLOGICAL VALUES

|   |           |                   |      |       |       |
|---|-----------|-------------------|------|-------|-------|
| Compression strength<br>10% compression set | DIN 53421 | N/mm <sup>2</sup> | ~0,1 | ~0,17 | ~0,35 |
| Elastic modulus (E-Modul)                   | DIN 53421 | N/mm <sup>2</sup> | ~1,5 | ~2,8  | ~5,0  |
| Bending strength                            | DIN 53423 |                   | ~4,0 | ~2,9  | ~2,1  |
| pH-value (Neutral = 7)                      | DIN 53124 |                   | 8,8  |       |       |

Note: These technical data of our products are typical ones for FOAM-X®. 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.

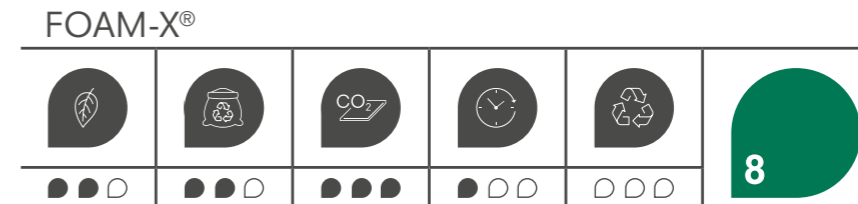
Join us on our sustainable mission!



# SUSTAINABILITY

## FOAM-X® FIVE-DOT-MISSION

FOAM-X®, the indoor foamboard with cover layers made of recycled paper is a real all-rounder and has been assessed in line with the criteria described above. The product currently achieves a FIVE-DOT classification of 8 points in total.



**BIOBASED CONTENT**  
 Not only polyurethane but also recycled paper cover layers are used in the production of our FOAM-X®, foamboards. The expanded polyurethane foam core comprises 15% of organic content. These polyols are sourced from renewable raw materials. In our production, FSC® certified paper is used and this makes up the main part of our FOAM-X® boards. 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.

All raw materials used in our FOAM-X® boards also comply with the requirements in the current version of the European Union's Chemicals Regulation (REACH). In particular, FOAM-X® 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 boards do not contain any toxic substances or heavy metals that may harm the environment or create health risks.

**RECYCLED CONTENT**  
 All the paper cover layers used in FOAM-X® boards are recycled FSC® certified paper. The paper cover layers make up the majority of the weight in the entire product.

**FOSSIL CO<sub>2</sub> BOUND IN THE MATERIAL**  
 FOAM-X® is ultra-light due to the special manufacturing technology featuring an expanded foam core between the two outer paper covering layers. As the foam core requires fewer resources to manufacture, the material has a lower carbon footprint. Using paper as the main component in terms of weight results in less fossil CO<sub>2</sub> bound in the material.

**PRODUCT LIFE CYCLE**  
 The FOAM-X® life span is typically at least several weeks or longer. The foamboards are primarily for simple interior applications (e.g. ceiling mounted suspended signs, window decoration, model building or for the backing board of picture frames).





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