

# Acryon 3D

3D Thermoformable Acrylic Composite

**AKRIPOL**

G4 Group





## ACRYON 3D

**ACRYON 3D** is a new generation of acrylic-mineral composite materials, made of acrylic resin and mineral fillers.

It combines the benefits of solid surface materials with the flexibility of cast acrylic sheets and offers unique thermoforming properties, opening up the possibility of previously unattainable solid surfaces for making unique products.

The material combines safety and aesthetics, and provides plenty of scope for creative, individual solutions. With its stone-like yet warm appearance, non-slip surface and ease of forming, ACRYON 3D makes the perfect choice especially for sanitary ware and bathroom furniture.

Its structure is suitable wherever the requirement is for a high-quality, perfectly smooth surface that repels water even when the material is installed

in a thin layer. With a satin surface, ACRYON 3D gives a product a noble and classy look. Despite their velvety impression, the surfaces are smooth, resistant to wiping and easy to care for.

The stone-like appearance, distinctive surface and ease of formation offer a variety of design options for walls, washbasins, low-profile trays and other furniture. It is a friendly material to work with. It can be thermoformed, bonded, sawn, laser-cut, edge-polished, drilled, engraved, etc. The possibilities are limitless and final look turns your idea into a design product.

When an Acryon 3D material is chosen, it has a long service life and always looks clean and elegant, yet requires little maintenance.

One side has a glossy surface and one side has a satin surface, so you can choose which suits you best.



## Application

Owing to these properties, ACRYON 3D is suitable for both horizontal and vertical applications in indoor and outdoor areas.

### Indoors

- Wall panels / wall protection
- Furniture, shelves and windowsills
- Sanitary ware such as bathtubs and shower solutions, sinks
- Displays, signs
- Unique home products

### Outdoors

- Facades / wall panels
- Windowsills and decor profiles
- Urban design
- Objects of all kinds

## Market Segments

- Sanitary ware and bathroom furniture
- Hotel engineering
- Restaurants
- Healthcare and medical equipment
- Wellness
- Shop fitting
- The furniture industry
- Marine and caravan design

## Processing

ACRYON 3D can be machined using all conventional woodworking and plastic processing machines. It allows the VACUUM technique.

It is easy to saw, drill, polish and form and can be installed without joints, including directly on site.



**ENDLESS POSSIBILITIES WHEN THE  
SURFACE SOLUTION IS ACRYON 3D.**

**The non-porous,  
durable, hygienic  
and renewable 3D  
thermoformable  
solid surface can be  
easily cleaned and  
maintained and is a  
pleasure to use.**

**Its smooth surface  
does not allow  
liquids to penetrate,  
which makes it easy  
to clean. Bacteria and  
mould have nowhere  
to take root.**





Pleasant, soft  
satin surface,  
“feels good”.

When it  
looks clean,  
it really is  
clean.

## Product Options

Aglas ACRYON 3D sheets come **ready to use with one side glossy and one side satin (matt)**. Both sides are protected with PE film and they are thermoformable on the glossy side.

Standard thicknesses are:  
**6, 8, 10 and 12 mm**

Available sizes:

- **2550 x 1260 mm**
- **3050 x 2050 mm**

Used mostly for 2D or 3D  
formed applications:

- **Sinks,**
- **Shower trays,**
- **bowls,**
- **wall / surface coverings,**
- **furniture, etc.**

## Properties

- 2D thermoforming with a very narrow radius
- 3D vacuum thermoforming is possible
- A wide selection of thicknesses
- Available in custom colours
- Improved chemical resistance
- High UV stability
- Water-resistant
- Anti-slip surface (satin grade)
- Can be additionally treated (UV print, CNC cut, ...)
- Easy-to-clean surface
- Resistant to bacteria
- Warm to the touch



**3D vacuum  
formable**



**Anti-slip  
surface**

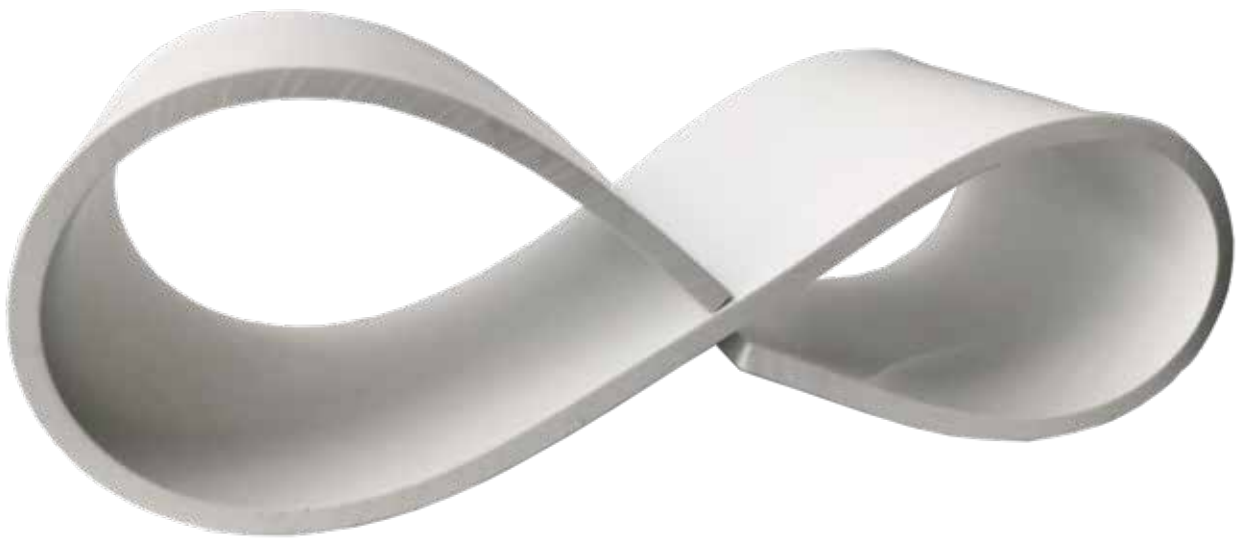


**Warm to  
the touch**



# Colours

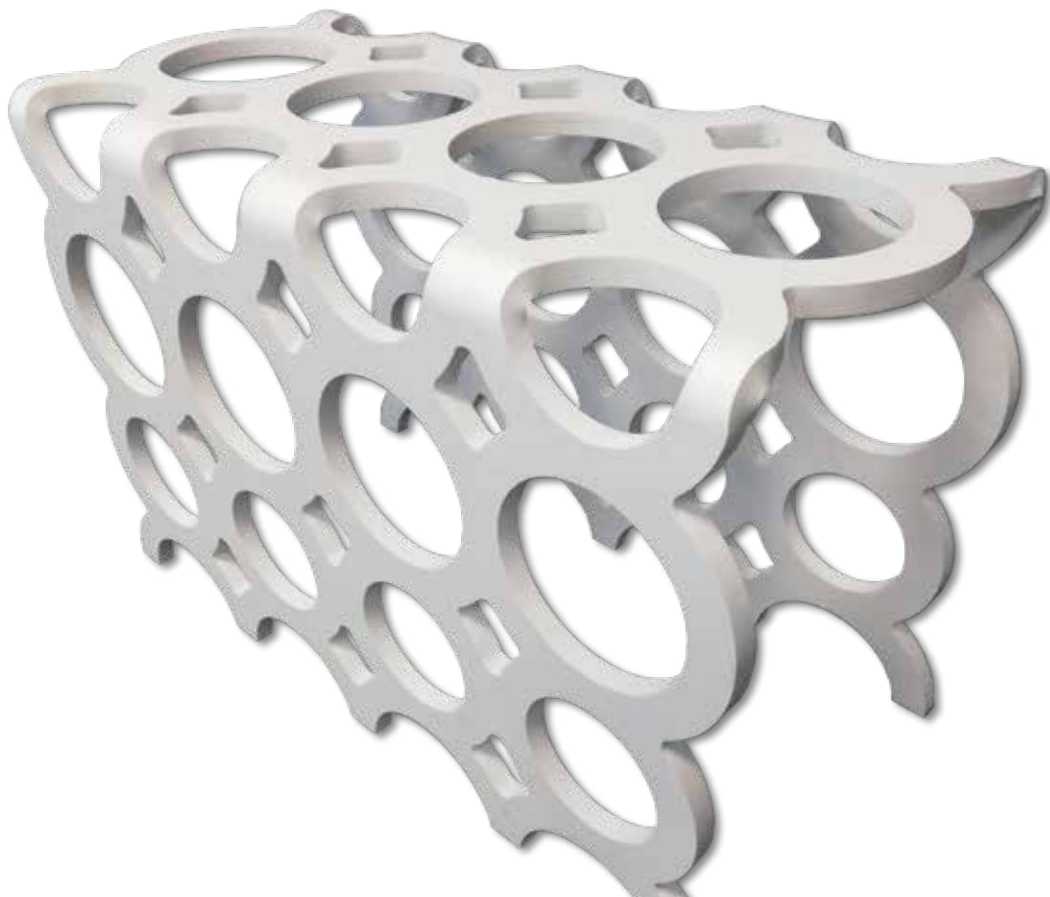
Standard sanitary white and a wide range of colours.



## Technical Properties

| Properties                                     | Value                                | Units             | Standard             |
|--|--------------------------------------|-------------------|----------------------|
| Density  | 1,54                                 | g/cm <sup>3</sup> | ISO 1183             |
| Modulus of elasticity                          | Min. 4700                            | MPa               | ISO 178              |
| Flexural strength                              | 78                                   | MPa               | ISO 178              |
| Tensile strength                               | Min. 40                              | Mpa               | ISO 5272/1B/5        |
| Coefficient of linear thermal expansion        | $50 \times 10^{-6}$<br>0.5 mm/m/10°K | 1/K               | DIN 53752-A          |
| Heat deflection temperature HDT                | 100 - 108                            | °C                | ISO 75               |
| Vicat softening temperature                    | >105                                 | °C                | ISO 306/B50          |
| Forming temperature 3D                         | 160 - 210                            | °C                | Internal             |
| Forming temperature 2D                         | Min. 140                             | °C                | internal             |
| Abrasion - Taber test                          | 145-160                              | mg                | DIN14688/2006        |
| Barcol hardness                                | 50-70                                |                   | DIN EN 59            |
| Anti-slip                                      | Class C                              |                   | DIN 51097            |
| Fire behaviour                                 | E                                    |                   | DIN EN 13501-1       |
| Fire behaviour                                 | B2                                   |                   | DIN 4102 Part 1      |
| Resistance to thermal cycling (hot/cold water) | No cracks/crazing/<br>detachment     |                   | DIN EN<br>14688/2003 |

\*Some of the technical properties are currently still undergoing testing. The values are of an informative nature.





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