

SIMONA



Mobile washing containers made of weather-resistant SIMONA® Twin-Wall Sheets



View from outside and into the interior of the mobile washing unit made of SIMONA® Twin-Wall Sheets.

Cleaning made easy: on behalf of KWB Air Systems, Profilplast, a leading distributor of semi-finished plastic products and piping components, was in search of a suitable structural material for the construction of an innovative cleaning container. As the container had to be flexible with regard to the field of applications, and hence transportable, apart from resistance to ultraviolet radiation and moisture it was particularly the weight of the material that played a key role. White SIMONA® PE 100 Twin-Wall Sheets with UV stabilisation convinced the client on account of their low specific weight and high level of rigidity, as a result of which it was possible to construct the washing container without any steel reinforcement.

The project at a glance

Project

Transportable washing unit for mobile cleaning

Requirements

- Excellent weather resistance
- UV stabilisation
- Resistance to moisture
- Lightweight design
- Easy processing
- Long service life

Client

Kärcher B.V., Made, Netherlands

Contractor

KWB Air Systems, Deurne, Netherlands

Technical support

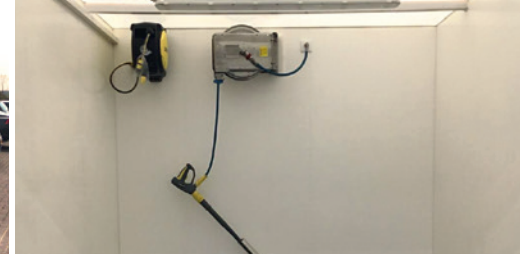
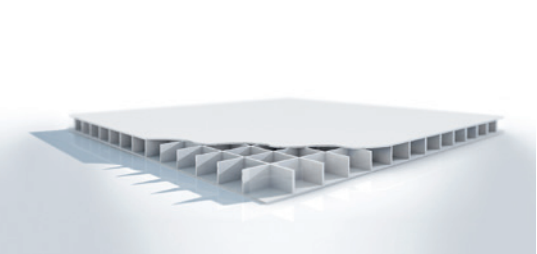
Profilplast BV, Sittard, Netherlands
SIMONA AG, Kirn, Germany

Products used

- SIMONA® PE 100 UV white Twin-Wall Sheets, 40 mm thick
- SIMONA® PE 100 UV white Welding Rod, 4 mm thick

Duration of project

2 months



Mobile washing units have to be made of weather-resistant material. SIMONA® PE 100 UV white Twin-Wall Sheets are easy to process and on account of their resistance to moisture and their UV stabilisation they prove to be ideal for outdoor applications.

SIMONA® Twin-Wall Sheets – sturdy, light and now also available in white

Initial situation

On behalf of their customer Kärcher B.V., a manufacturer of state-of-the-art cleaning equipment and systems, KWB Air Systems designed an innovative washing container. It had to be possible to customise the design and fittings of the container to meet the customer's specific requirements. Another essential prerequisite was that the container had to be suitable for use not only as a mobile washing unit but also as a permanent one.

Task

For the design of the container a sheet material was required that can be exposed to wind and weather without any problems and features UV stabilisation. These properties would ensure a long service life in outdoor use. Given the field of application, great importance was also attached to moisture resistance and easy cleaning of the material. In addition, it had to be lightweight in design in order to facilitate transport of the container.

Solution

The mobile washing container with the internal dimensions of 3.90 m x 2.60 m x 2.60 m (L x W x H) was made using cross-ribbed SIMONA® Twin-Wall Sheets made of PE 100 UV white. The container has double doors for easy loading, a lockable equipment room and an anti-slip floor and it has been equipped, amongst other items, with a powerful pressure washer from Kärcher B.V. For the collection of dirty water a 4 m³ tank made of PE 100 is integrated into the interior of the container.

Owing to its wide service temperature range from -50 °C to +80 °C and the existing UV stabilisation, SIMONA® Twin-Wall Sheets in PE 100 UV white proved to be ideal for the washing container to be used outdoors. The material has a very low specific weight, good thermal insulation and a high level of rigidity, as a result of which KWB's design did not require any additional steel reinforcement. SIMONA® PE 100 UV white Twin-Wall Sheets do not absorb water and are easy to process and clean. By contrast with black semi-finished products, the white sheets heat up less in sunshine and also offer the benefit of good lighting inside the washing container.

SIMONA® PE 100 UV white Twin-Wall Sheets

Properties

- High chemical resistance
- Excellent weather resistance
- No water absorption
- UV stabilisation
- High rigidity
- Low weight
- Good thermal insulation
- Excellent processing parameters

Fields of application

- Chemical installations
- Bioindustry and pharmaceutical industry
- Livestock farming and agriculture
- Tank construction
- Swimming pool construction

Product range

- SIMONA® PE 100 UV white Twin-Wall Sheets
- Total thickness: 40 mm
 - Thickness of outer skin: 6 mm
 - Web spacing: 50 mm

Further Information

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