Roos & Co. Kunststoff- und Metallverarbeitungs GmbH was commissioned by BakerCorp GmbH & Co. KG to design a double-walled storage container for temporary use at various sites. The focus was on ensuring maximum flexibility during inspection and maintenance work. SIMONA® PE 100 Twin-Wall Sheets proved to be the perfect material for this field of application.
SIMONA® PE 100 Twin-Wall Sheets – a tailor-made solution

Initial situation
For use on a truck, an existing steel construction was to be extended such that the overall storage unit could be transported when empty.

Requirement
Roos & Co. Kunststoff- und Metallverarbeitungs GmbH was tasked with finding a product that would be suitable for integration within an existing steel structure, including leakage monitoring.

Additionally, the material was to have the following properties:
- Low weight
- High UV stability
- High rigidity and stability
- High chemical resistance

Solution
Lengthways-ribbed SIMONA® Twin-Wall Sheets made of PE 100 were used for this project. SIMONA® Twin-Wall Sheets offer the advantages of high rigidity, low specific weight and good thermal insulation. What is more, they combine the benefits of simple handling and processing, which makes them particularly versatile.

The ridges of the SIMONA® Twin-Wall Sheets were positioned vertically to ensure the best possible structural design for the container and collector. The principle of structural isolation (interior base / exterior base) was applied when designing the base. The double-walled design with leakage monitoring was achieved by means of a connection with the twin-wall sheets. The structure featured a slanted floor with a leakage detector installed at the lowest point and an inspection unit on the exterior wall. After each cleaning cycle negative pressure is applied for the purpose of ensuring a watertight seal between the container and the collector.

To ensure that the roof of the container is also accessible in poor weather conditions (e.g. rain), SIMONA® PE 100 AR Sheets with an anti-slip surface on one side were used.

Further information
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