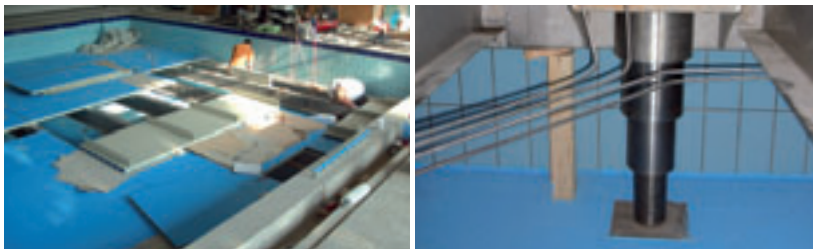




## Swimming Pool Floor made of SIMONA® Twin-Wall Sheets



Above: Floor of pool for entry-level swimmers. Below: Assembly of swimming pool floor. Hydraulic unit for adjustable pool depth.

In 2007, the Hungarian company TEMPERO ZRT. commissioned TÜRK-MÚANYAG BT. to design and construct the polymer flooring of a swimming pool used for teaching purposes. The pool was to be equipped with a hydraulic unit to raise and lower the floor and thereby adjust the depth of the swimming pool. Other specifications included slip-proof properties and a high-quality appearance of the materials used.

### The project at a glance

#### Project

Learners' swimming pool with adjustable water depth

#### Requirements

- ▀ Swimming pool floor with hydraulic unit for adjustment of water level
- ▀ Anti-slip properties
- ▀ High rigidity
- ▀ Chemical resistance
- ▀ Premium-quality appearance

#### Client

TEMPERO ZRT., Hungary

#### Contractor

TÜRK-MÚANYAG BT., Hungary

#### Technical consultants

- ▀ Technical Service Center SIMONA AG
- ▀ UMUNDUM BT.

#### Products used

- ▀ SIMONA® Twin-Wall Sheets made of PP-C-UV embossed, size: 3000 x 1000 x 54 mm
- ▀ Upper side: PP-C-UV embossed, blue, 6 mm
- ▀ Reverse side: PP-DWU AlphaPlus grey

#### Project duration

2007



Fig. f.l.t.r.: Swimming pool floor welded to mounting panel, steel frame for hydraulic unit, bolted swimming pool floor.

## SIMONA® Twin-Wall Sheets – The Perfect Choice for Challenging Applications

### Initial situation

Construction of a pool for entry-level swimmers (size: 16 x 8.5 m), suitable for children aged 3 to 16. Additional requirements for the learners' swimming pool: fast and simple adjustment of the water depth in a range from 80 to 135 cm.

### Task

TÜRK-MŰANYAG BT. had to put forward a solution that was both cost-effective and compliant with the planning and design specifications. The requirement of long-term durability combined with minimal deformation posed a particular challenge.

### Solution

Displaying excellent rigidity, SIMONA® twin-wall sheets proved the best choice when it came to meeting the client's demanding requirements and delivering superior value. The standard grey colouration generally used in industrial applications was not considered appropriate in this case.

Therefore, SIMONA developed a special twin-wall sheet with a cover sheet made of non-slip PP-C-UV embossed (blue) and a base sheet made of PP-DWU AlphaPlus (grey).

TÜRK-MŰANYAG cut the SIMONA® twin-wall sheets (3000 x 1000 x 54 mm) to size at its own production facility and filled approx. 30% of the hollow spaces in order to achieve the strength required for hydraulic adjustment of the pool floor. As part of the on-line assembly process, qualified polymer welding specialists employed by TÜRK-MŰANYAG joined the mounting panels made of PP-H to the PP-HKP sheets and bolted the unit to the steel frame. A 4 mm gap was left between the sheets in order to facilitate water flow when raising and lowering the swimming pool floor and to contribute to efficient water circulation from the pool vents.

For safety purposes an emergency opening in the floor was incorporated at six points. Meticulous processing and high-precision assembly were of paramount importance in order to prevent accidents during the use of the pool.

### SIMONA® Twin-Wall Sheets (PP-HKP)

#### Properties

- Low weight
- Outstanding chemical resistance
- Excellent processing capability
- High rigidity and strength
- High resistance to fracture
- Broad scope of application

#### Product range

- Sheets made of PE (PE-HKP), PP, PPs or PP-C in various sizes with variable web spacing and a range of thicknesses

### Further information:

SIMONA AG  
 Technical Service Center  
 Phone +49(0)67 52 14-587  
 tsc@simona.de