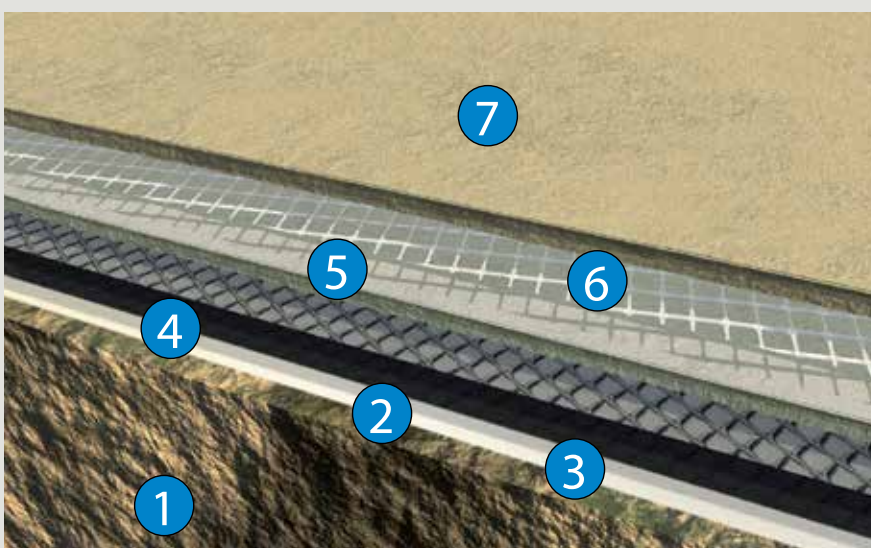


A REVOLUTIONARY PATENT

That has radically changed the very concept of the swimming pool

Years of research and product development and the many hundreds of public and private swimming pools that we have built throughout the world have resulted in the development of Biodesign, a patented construction technology of low environmental impact, which has both an extraordinary waterproofing quality as well as a superior structural performance. **Technical data sheets show how our waterproofing is superior to that used in traditional pools for its elasticity (+300%) and durability, in addition to greater resistance to UV light, ice and chemicals.** Biodesign structural paving, composed of specially formulated resins and quartz, **has a greater mechanical strength than structural concrete.** In order to understand their real value, these differences, which in themselves are clearly superior to the traditional pool-construction systems, must be compared based on their use: **in fact, since the Biodesign structure is laid over it, the waterproofing liner when immersed in water, is not subject to the pressure and load of the water itself.**

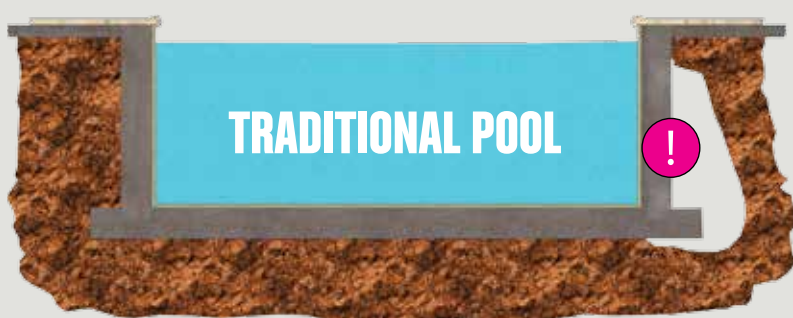
PATENTED BIODESIGN TECHNOLOGY



SYSTEM PROTECTED BY INTERNATIONAL INVENTION PATENT

1	EXCAVATION
2	PROTECTIVE GEOTEXTILE
3	WATERPROOF EPDM LINER
4	CONSOLIDATION NET
5	ROUGH LAYER STONE & RESIN FINISH
6	INTERMEDIATE CONSOLIDATION NET
7	FINISHING LAYER STONE & RESIN FINISH

CONSTRUCTION TECHNOLOGY



A traditional concrete pool is sized to withstand the structure's own loads (about 600 kg per m²) plus the thrust and weight of the water it contains (140 cm water depth = 1400 kg per m²). The thickness and therefore the weight of the structure thus become essential RIGID elements whose overall weight is borne by the ground on which it is installed.



A Biodesign swimming pool bears a very limited structural load (about 70kg per m²) and is NOT subject to any load from the weight of water it contains. In fact, the thrust and weight of the water is transferred entirely to the ground that, thanks to the elasticity of the waterproof liner (+ 300%), is free to move and settle without any damage to the pool.

STRUCTURE CERTIFICATIONS



UNIVERSITY OF MODENA AND REGGIO EMILIA, ITALY
"Enzo Ferrari" Department of Engineering

Resistance and compression tests

Content:

- Structural description of the application of Biodesign technology building material.
- Analysis of materials and results of experimental tests.
- Analysis of actual loads.

Conclusions of the study:

- Biodesign technology provides a high degree of resistance when compared to the stresses generated by the thrusts and pressure of both the soil and the water.
- The structure is free from extra loads caused by soil movement.
- The structural paving made of quartz and resin is easily able to support the secondary loads.
- The Biodesign structure has strong and significant mechanical properties.
- Based on the considerations set out in this study, for ordinary Biodesign projects there is no need for additional structural inspections.



Researchers

Angelo Marcello Tarantino
Professor of Building Science

Andrea Nobili
Researcher Role in Building Science

Luca Lanzoni
University Researcher (open-ended employment contract) in Building Science

Modena, 4/10/2012