
SHILIAN CHEMICAL PLANT IN HUAI AN, JIANGSU PROVINCE, CHINA

CAST-IN-SITU WHITE CONCRETE APPLICATION: AALBORG WHITE® P.W.52.5



PROJECT DESCRIPTION

Located in the New Salt Industrial Park of Huai'An City, Jiangsu Province, Shihlien Chemical Industrial Jiangsu Co. is one of the world's largest combined soda ash and ammonium chloride production plants.

As early as in 2009, Shihlien Chemical Chairman Por-Shih Lin envisioned creating an office building over the 100,000m² artificial lake (and water reservoir) of the vast industrial complex. To realize this visionary plan, he invited internationally renowned architect Álvaro Siza to head the design team.

Over-water construction was an entirely new venture for Álvaro Siza. The Building On the Water took four years to design and construct. Meticulously built in white cast-in-situ fair face concrete based on Aalborg White® high strength white cement, the building's pristine curvilinear form measures over 300m in length, comprising two levels above water and a total built floor area of approximately 11,000 sqm.

It was the first time for contractors to construct the building using white concrete and had less knowledge on properties of the white cement. It took several months to have countless times full scale testing on white concrete in order to achieve smooth and even white color surface with minimum cracks.

Crisscrossing the curving geometries, white concrete bridges interconnect spaces, levels and volumes. The design takes full advantage of its poetic setting and natural light. In constant interplay with the environment – whether it is the changing hues and reflections of the water, or varying tones of light and shadow, the building manifests a multitude of changing complexions due to the white fair face concrete surface. Whether viewed from land, water or air, the elegant

white concrete building conveys a quiet beauty achieved when the concrete and substantial comes in contact with the fluid and ethereal.

PROJECT PARTICIPANTS

RMC Contractor: Zhejiang Urban Construction Group

Engineering: Shanghai Qingya Mechanical and Electrical Engineering Co. (HVAC, electrical, plumbing, telecommunications and security installation) RFR Shanghai (Structural review)
Geberit China (Water drainage)

Architects: Álvaro Siza e Carlos Castanheira

Cement White Producer: Aalborg Portland (Anqing) Co., Ltd.