



IKEA Facility
Bandung, Indonesia



Completion Date
DECEMBER 2020

Owner
IKEA

Designer/Engineer
TAYLOR THOMSON WHITTING

Construction Management
Consultant
HASKONINGDHV

Contractor
PT. TOTAL BANGUN PERSADA

Products
ADMIX C-1000 NF

Project Type
GENERAL CONSTRUCTION

In November 2019 PT. Struktur Pintar Indonesia was invited by IKEA to participate as one of a number of waterproofing suppliers to be assessed for works at a new facility to be built in Bandung, Java, Indonesia. The project was designed by Australian consultants Taylor Thomson and Whiting, with Royal Haskoning-DHV of the Netherlands appointed as construction management consultants.

ability testing was carried out at a facility of PUSKIM (Research and Development Centre for Building and Housing, Ministry of Public Works and Housing). The slump test measured slump loss between 1 to 3 hours; the permeability test was based on the DIN 1048 standard, and compressive strength tests were carried out at 7, 14, 21, and 28 days.

After completion of the prescribed tests, Xypex samples provided the most satisfactory technical outcomes so, after commercial issues were settled, PT. Struktur Pintar Indonesia was contracted to supply and apply the waterproofing solution for the project.



IKEA project site overview

The IKEA consultants required all competing companies to submit to a range of tests in order to determine the most appropriate waterproofing solution for their new facility. The testing was conducted primarily from a batching plant of the project's appointed concrete supplier PT. ADHIMIX, while the actual perme-



Slump test after addition of Xypex Admix



Pouring Concrete with Xypex Admix for the 'Grey Water' tank



Preparation of Admix slurry to be added to concrete truck



Mixing Xypex Admix into the concrete truck

Construction began in early 2020 at the 4.5 ha Bandung site, with the actual IKEA building structure planned to cover an area of approximately 35,000 m². IKEA consultants chose Xypex Admix C-Series as the stand-alone waterproofing material for the grey water tank, domestic water tanks, fire water tanks, generator rooms, and loading docks.

The client chose on-site dosing of their 'waterproof' concretes, so to ensure that the Xypex Admix dosage rates and mixing processes could be carefully controlled and carried out in accordance with established standard procedures. The client has also accrued extra value because the 'application' of Xypex Admix is a much simpler process, employing a smaller work force on site for shorter periods of time—an unplanned yet most significant 'bonus' during the advent of COVID-19 in 2020—whilst always maintaining an assured quality outcome.



Slump testing, which is normally performed after mixing to check for consistency of the plastic concrete, has also revealed to the client's satisfaction that, due to the very nature of Xypex Admix C-1000 NF, the slump was not affected.

Xypex Admix C-Series greatly reduces the amount of labour and time required to apply a comprehensive waterproofing solution as it is simply added at the time of batching. The **Crystalline Technology** is added to the concrete mix and becomes a permanent, integral part of the substrate, not only waterproofing but also enhancing the durability of concrete structures.