



SIKA AT WORK

PRECAST CONCRETE TELESCOPIC OFFSHORE WIND TURBINE, SPAIN

PRECAST CONCRETE ELEMENTS PRODUCED
WITH SIKA CONCRETE ADMIXTURES

BUILDING TRUST



PRECAST CONCRETE TELESCOPIC OFF-SHORE WIND TURBINE, SPAIN



PROJECT DESCRIPTION

After 7 years of investigation in the Elisa technology, Esteyco has built the first prototype with a revolutionary technology of an offshore wind turbine made completely of concrete, with a gravity base foundation.

PROJECT REQUIREMENTS

The telescopic tower is a great technological innovation in terms of the structure and the installation. The Elisa Project is the first offshore wind turbine installed without the need for big vessels or offshore cranes, therefore significantly reducing the installation costs.

The design allows the assembly of the structure and all the components in port. All the structural concrete was formulated with Sika Concrete Admixtures.

SIKA SOLUTIONS

For the gravity base foundation of the tower a soft consistency concrete was used for the slab and a fluid consistency one for the walls.

Concrete type: HA40 B20/ 3B+QB

Cement type: I 52.5

Sika Admixtures: SikaPlast®-780 IC and Sikament®-230

For the precast elements of the tower the following concrete was used:

Concrete type: HAC 60-AC-E2/12/3C+E

Type of cement: I 52.5 and 32.5

Sika Admixture: Sika ViscoCrete® V-70 , Sikament®-230 and SikaTard®-930

PROJECT PARTICIPANTS

Engineer: Esteyco

Construction: Horizon 2020

Concrete supplier: Canary Concrete

Sika organization: Sika Spain

VIDEO:

To watch the complete video from the construction of the tower click on the following link:

[Elisa Technology by Esteyco - YouTube](#)

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