

# TANKPUT 19 VOPAK TERMINAL

## CASE STUDY

ESC after working very closely with Europile BV in the Netherlands for several years experienced a major breakthrough into Europe with this order. VOPAK Terminal in Rotterdam, Netherlands needed to have an impervious fire proof barrier put in place under the Netherlands Government legislation. The oil tanks had to have a perimeter that would withstand the possible scenario of a massive failure of the tanks and all the contents flowing out into the surrounding area. In addition, this liquid could well be on fire at the time so the perimeter had to cater for this potential issue as well. Several alternatives were lobbied by various contractors.

Geka Bouw B.V. won the project with a sheet pile option supplied by ESC. ESC worked closely with Geka Bouw B.V. through its agent in Europe, Europile B.V.

Calculations were carried out by ESC in order to ensure that the stringent requirements of the Client (Royal Vopak N.V.) and the Contractor were met whilst at the same time the budget constraints needed to be adhered to.

All sheet piles were painted on the top 4 metres (both sides) with 375 microns of Jotamastic 87 black paint. The capping beams were completely coated using the same paint and thickness. All painting works were carried out in the ESC factory in China. ESC's scope of products are ESC-EU12 Steel Sheet Piles in lengths 8-9m (404 tons) and Capping Beam in 11.8m length (21 tons)

**ESC EU COMBINED PILE PROPERTIES**



ESC-EU12-8881 COMBINED SECTION

COMBINED PILE PROPERTIES							
SERIES	PLATE THICKNESS (mm)	WEIGHT (kg/m)	DESIGN SECTION CLASS	ELASTIC MODULUS (N/mm <sup>2</sup> )	PLASTIC MODULUS (N/mm <sup>2</sup> )	MOODY OF YIELDING (N/mm <sup>2</sup> )	MOODY OF TENSION (N/mm <sup>2</sup> )
ESC-EU12-8881	8	82.4	CLASS 2	205	355	355	510

NOTE: All dimensions are in millimeters unless otherwise specified.  
All weights are in kg/m unless otherwise specified.



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