



SIKA AT WORK

GEMINI OFFSHORE WIND PARK NORTH SEA, THE NETHERLANDS

OFFSHORE & MARINE CONSTRUCTION
RENEWABLE ENERGY

BUILDING TRUST



GEMINI OFFSHORE WIND PARK NORTH SEA, THE NETHERLANDS



PROJECT DESCRIPTION

In early 2015, SikaGrout®-9800 was chosen for grouting at the Gemini Offshore Wind Park, one of the world's largest offshore wind projects. Located in the North Sea, the park is owned by Northland Power in joint venture with Siemens, Van Oord, and HVC. It features 150 Siemens 4 MW turbines, delivering 600 MW of renewable energy to 785,000 households since 2017.

Project name: Gemini Offshore 600 MW Wind Park
Location: North Sea, 85 km north of Groningen, The Netherlands
Year: 2015
Application: Monopile foundations
Product: SikaGrout®-9800

PROJECT REQUIREMENTS

The Gemini Wind Park was one of the largest offshore grouting projects in Dutch waters. 150 monopile foundations were installed, requiring specialized grouting to fill the annular gaps between monopiles and transition pieces. Despite challenging offshore conditions and short weather windows, the foundation installation and grouting were completed without disrupting the installation schedule.

SIKA SOLUTIONS

SikaGrout®-9800 is engineered to meet the toughest wind turbine installation requirements, overcoming common offshore grouting challenges. Formulated for large-scale applications, it efficiently fills voids from 20 mm to 600 mm, benefiting from bulk supply and continuous mixing. Designed for foundations requiring 60 to 90 MPa strength, it ensures long-term durability, fast installation, and cost-effective wind farm construction.

Any product name or reference reflects the Sika product name at the time of creation of this document and may differ from the product name or reference during past events.

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.



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CUSTOMER BENEFITS

- SikaGrout®-9800 can be shipped and stored in silos, enabling quayside storage in all weather conditions. This eliminates the need for bag or container lifting, improving deck layout flexibility and dockside resupply efficiency.
- With extremely low autogenous shrinkage, high fatigue resistance, and excellent early strength development even in cold temperatures, SikaGrout®-9800 optimizes foundation installation by reducing grouting time and costs while ensuring long-term durability.
- Using specialized grouting equipment, delivery rates exceed 20 cubic meters per hour, enabling faster annulus grouting and saving valuable offshore operating days. The closed-loop system between the silo and recirculating jet mixer minimizes waste, reduces dust, and enhances efficiency.
- The combination of SikaGrout®-9800 and recirculating jet mixer technology resulted in significant cost savings and improved site safety by reducing crane movements.

PROJECT PARTICIPANTS

Main Contractor: Van Oord Offshore Wind Projects B.V.
Applicator / Contractor: FoundOcean Ltd.

QUICK FACTS

Amount of material used:	3,048 tons
Number of turbines:	150 × Siemens SWT-4.0-130
Windfarm total capacity:	600 MW
Homes equivalent:	785,000
CO₂ reduced per year:	1.25 million tons
Turbine hub height:	88,5 meter above sea level
Area of wind farm:	70 km ²
Foundation type:	Grounded Monopile foundation with bolted connection and skirt backfill
Typical water depth:	28 - 36 m