



SIKA AT WORK

JEONNAM OFFSHORE WIND FARM, PHASE 1, SOUTH KOREA

OFFSHORE & MARINE CONSTRUCTION
RENEWABLE ENERGY

BUILDING TRUST



JEONNAM OFFSHORE WIND FARM, PHASE 1, SOUTH KOREA



PROJECT DESCRIPTION

Jeonnam Offshore Wind Farm is South Korea's first large-scale offshore wind project, with a capacity of 96 MW. The wind farm started producing electricity in November 2024, with turbine installation finalized by December 18, 2024. When operating at full capacity, Jeonnam is projected to provide renewable energy to around 60,000 households.

Project name: Jeonnam Offshore Wind Farm Phase 1
Location: 15 km offshore of Jaeun-do, Jeonnam, South Korea
Year: 2024
Application: Monopile foundations
Product: SikaGrout® -9550

PROJECT REQUIREMENTS

Hyundai Engineering Steel Industries (HESI), in partnership with the developer JOWP, engaged Sika to supply grouting materials and services for the project. Out of the ten monopile/transition piece (MP/TP) wind turbine foundations, three required grouting. Each foundation consists of a monopile and an insert pile, with the monopiles driven into position before drilling and installing the insert piles. Once the insert piles were in place, grouting was necessary to fill the annular space between the rock, insert pile, and monopile.

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.

SIKA SOLUTIONS

Sika supplied grout material in 8.2 MT uFIBC's, two (2) ComPact45 offshore grout spreads, on-site QC Mobile Laboratory and a skilled offshore grouting team.

- 1st pile - FOU06 completed with a grout volume of 688.8 MT applied.
- 2nd pile - FOU03 completed with a grout volume of 885.6 MT applied.
- 3rd pile - FOU04 completed with a grout volume of 656 MT applied.
- Total material quantity applied: 2,230 MT

CUSTOMER BENEFITS

- This was the largest grout volume for an offshore wind monopile foundation in a single operation, setting a new industry benchmark.
- The two cutting-edge CPT45 offshore grouting spreads delivered an impressive output of over 30 m³ per hour.
- Both grouting systems operated in tandem, resulting in a seamless execution and reducing downtime.
- The application of SikaGrout®-9550 significantly reduced tower base installation waiting time by exceeding the required 60 MPa grout strength within 24 hours.
- Sika's advanced materials and expert offshore grouting team ensured optimal foundation stability and long-term performance and a smooth project execution.



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