



November , 2019

Marcin Blockus Civ.Eng.PhD

To Whom It May Concern,

I served as the head design engineer of INGEO Sp. o.o. geotechnical consulting for the geotechnical ground evaluation and improvement solution for the Balticon new container yard in Gdansk Port, Poland.

The designated site was defaced by 10m deep holes from mining operations, and characterized by highly unstable, unconsolidated and saturated soil profile. Dynamic compaction was selected to achieve a minimum subgrade CBR, while a geocell solution was preferred to achieve maximum stabilization impact.

PRS Neoloy Geocells were selected due to their high mechanical properties – high stiffness (>500 Mpa @ 60°C), high tensile strength (>19 kN/m) and low permanent degradation (<3% at 75 years). The modulus improved layers will minimize differential settlement and pavement rutting under the heavy-duty container handling (dynamic and static loading).

The Neoloy Geocell met three key project challenges.

- **Geotechnical – stabilize compressible foundation soils:** improves soil modulus and eliminates need for chemically stabilized subgrade.
We managed to improve the subgrade modulus from 40 MPa to 250 MPa, by using local available sand.
- **Engineering – optimized load transfer:** acts as a stiff flexible slab that distributes loads widely and effectively “floats” over the soft subgrade.
- **Economics – cost-effective:** enabled 33% reduction in roller compacted concrete (RCC) layer, in addition to elimination of chemical stabilization – and therefore long-term savings in maintenance and repairs.

We were satisfied with the technical assistance from PRS Poland and would recommend PRS Neoloy Geocells in other geo-technically challenging projects.

Best regards,

Marcin Blockus Civ. Eng. PhD
CEO
INGEO Sp. z o.o.

A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke at the end.