

The highest road embankments in Poland – temperature measurements



EpsilonRebar: Case Study

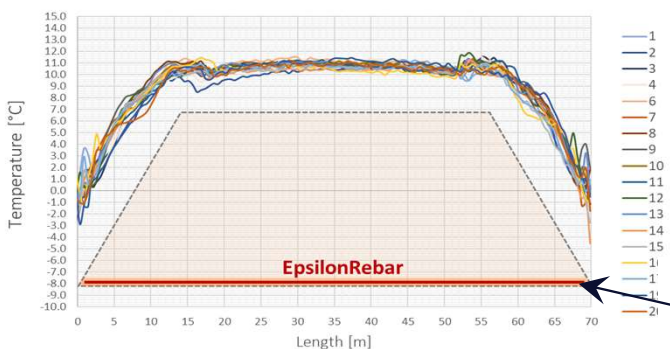
To monitor the structural behaviour of the largest road embankments in Poland, we applied three independent measurement solutions: Inclify, SHMProfiler and EpsilonRebars from Nerve-Sensors. The latter were used to measure temperature distributions at the base along the entire width of the structure. Temperature results were used, among other things, to compensate for data from the two other measurement techniques.



Benefits of application

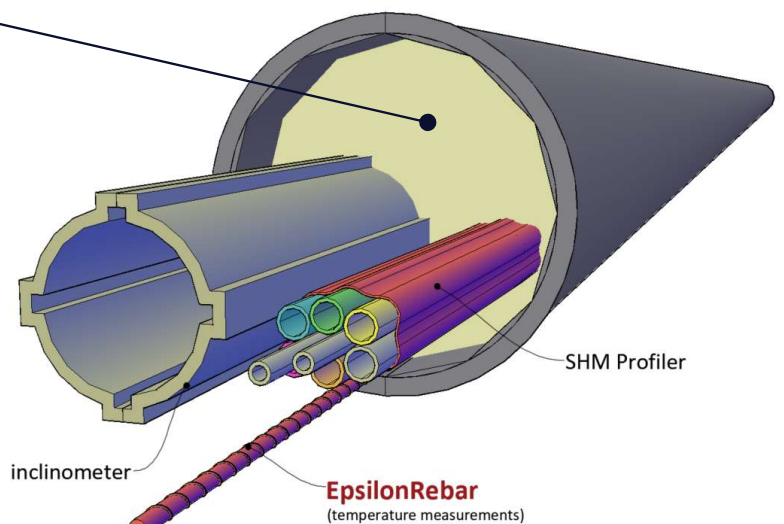
- Measurements of **temperatures distributions** along the entire embankment width
- Reliable data for **thermal compensation** of other techniques
- Robust solution for fast installation in extremely difficult geotechnical conditions
- Unique knowledge for **scientific analysis** and numerical simulations (FEA)

Example results



The measurements were performed at selected construction stages. The right figure shows example temperature distributions registered along the embankment base. We can observe high gradients ($>10^{\circ}\text{C}$) depending on slope geometry, sun exposition and actual environmental conditions.

- **67 600** measurement points
- **676 m** of sensing path
- **8 x EpsilonRebar**
- **during construction**



project
partner:

