

PRESS RELEASE



Pilot Application of sustainable hybrid nanostructured anticorrosion coatings for structural steel

POLYCHIMIKI G. MATZIARIS S.A. - UZIN Hellas in collaboration with the **Laboratory of Building Materials of the School of Civil Engineering of the Aristotle University of Thessaloniki** within the framework of the Recovery Plan

for Europe through the Action **"Investment Projects of Innovation" of the Central Macedonia Program NSRF 2021 - 2027 (KMP6-02817)** developed an industrial series of sustainable hybrid nanostructured coatings for the anticorrosive protection of structural steel.

The pilot testing was successfully carried out in collaboration with **SIDENOR S.A. group**, which was selected due to the existing cooperation and non-binding commercial interest (Non-Disclosure Agreement) concerning the potential exploitation of the developed products.



The scientific supervision and quality assurance oversight of the pilot implementation were provided by **Dr. Avraam Mastorakis, Quality Assurance Senior Manager of the SIDENOR Group** and the pilot testing took place at the facilities of SOVEL S.A., a member of the SIDENOR Group, located in Almyros, Volos (Greece), on January 22, 2025, with the valuable technical assistance of **Mr. Vardakis, Quality Control Manager at SOVEL S.A.**



For safety and environmental management reasons in compliance with the ISO 14001 Environmental Management System, the water-based WB series of protective anticorrosive coatings was exclusively selected for the pilot application, as the use of solvent-based products was not permissible under the site's safety protocol. The anticorrosive coatings were applied by spraying during the hot rolling and shaping process of the structural steel, at a temperature of approximately 600°C, directly before the cutting station of the reinforcing steel bars.

The trial was completed successfully, and the resulting coated structural steel exhibited excellent adhesion, coating uniformity and thermal stability, fully meeting the quality control standards applied by the SIDENOR Group.

These results confirm **the industrial feasibility of the sustainable hybrid nanostructured coatings** and **demonstrate their high efficiency as anticorrosive protective layers for structural steel components.**