



North Carolina Department of Transportation  
Materials and Tests Unit – Product Evaluation Program  
Innovative Technologies and Products Awareness Report  
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## PRODUCT INNOVATION – EonCoat Corrosion Protection Coating



*Application of EonCoat to a carbon steel beam – image from EonCoat NCDOT product application*

EonCoat Corrosion Protection Coating is a spray-applied surface treatment for carbon steel produced by EonCoat LLC out of Fuquay-Varina, North Carolina. It is currently under evaluation and listed on the Approved Products List (APL) as NP22-9179. EonCoat's Corrosion Protection Coating is an innovative and effective way to permanently protect carbon steel from corrosion. The product is a two-component system applied in a 1:1 ratio composed primarily of potassium monophosphate and magnesium hydroxide. Once the product is mixed with carbon steel, a chemical reaction takes place that creates two layers of corrosion protection. The first is an iron phosphate layer and the second is a ceramic layer filled with phosphate. The water-based product has no VOCs, no Hazardous Air Pollutants, no odors, and no toxins. A recent NASA report concluded that the product outperformed other leading industry coatings, including inorganic zinc. For more information, please visit: <https://eoncoat.com/>

## PRODUCT HIGHLIGHT – Quadex® Qm-1s Restore

Quadex® Qm-1s Restore is manufactured by Vortex out of Muskogee, Oklahoma. It is currently under evaluation and is listed on the APL as NP22-9187. Quadex® Qm-1s Restore is a portland cement based, single component, high strength, fiber reinforced, shrinkage compensated cement mortar enhanced with a monocrystalline quartz aggregate. The product was designed to structurally repair deteriorated metal, concrete, and masonry structures in vertical, horizontal, and overhead sewer or stormwater environments. QM-1s Restore can deliver a monolithic one pass vertical surface application up to three inches in thickness by low pressure spraying or centrifugally casting. The product has a high early and ultimate compressive, flexural, and bond strengths; and is resistant to sulfate attack. For more information, please visit: <https://vortexcompanies.com/product/qm-1s-restore-cement-based-mortar/>



*Before (left image) and after (right image) example of Quadex® Qm-1s Restore applied to a vertical shaft originally constructed of brick – image from Vortex technical data sheet*