



North Carolina Department of Transportation
Materials and Tests Unit – Product Evaluation Program
Innovative Technologies and Products Awareness Report
January 6th, 2021



PRODUCT HIGHLIGHT – RED 104OG and 104OGA



*Samples of Silica Fume – images
from R-E-D website*

RED 104OG and 104OGA are Silica Fume products manufactured by Reliable, Efficient, Dependable (R-E-D) Industrial Products out of Burnsville, Mississippi and Montgomery, Alabama. They are currently approved for use on the Approved Products List (APL) as NP19-8575 (RED 104OG), and NP19-8576 (104OGA). Silica Fume products are mainly used as a pozzolanic material in high performance concrete applications, and where greater resistance to chloride penetration is needed, such as parking structures, bridges, and bridge decks. These products enhance the concrete's compressive strength and durability, while reducing permeability, porosity, viscosity, and the set time of cement-based materials. Both products are comprised of 100% recycled materials using off gases from silicon metal and ferrosilicon alloy production high in SiO₂ to produce a value-added product from a waste stream. For more information, please visit: www.redindustrialproducts.com

PRODUCT INNOVATION – USCP Steel Reinforced Polymer Manholes



*Installation of USCP Steel Reinforced Polymer
Manhole – photograph from USCP website*

The USCP Steel Reinforced Polymer Manhole is manufactured by U.S. Composite Pipe, Inc. out of Alvarado, Texas. It is currently listed as under evaluation on the APL as NP19-8573. Polymer concrete manholes are used in corrosive environments without the need for a coating or liner to protect them. They can be installed in field conditions with a pH range of 1 to 13, and have a typical design compressive strength of 9,000 psi. The USCP Steel Reinforced Polymer Manhole is available in a range of diameters from 48" to 192". They can be field cored should additional lines be needed later, and the tops are HS-20 rated. For more information, please visit: www.uscompositепipe.com/manholes/