

BOS 100®

REMEDATION PRODUCTS INC.

Primary Use

In Situ Chlorinated Solvent
Remediation

Treatment Mechanism

Trap & Treat® - Activated
Carbon Adsorption + Chemical
Reduction via Impregnated
Reactive Iron

Delivery Methods

RPI-Approved Direct Push
or Packer Injection. Direct
Application via Soil Mixing
or Trenching



BOS 100® Product Description

BOS 100® is a Trap & Treat® in situ remediation technology specifically designed to degrade chlorinated solvents. It is a unique material manufactured from high grade virgin carbons (intended for use in food or drinking water applications). The food grade carbon is impregnated with metallic iron formed under reducing conditions at a temperature of roughly 850 degrees C. At this temperature, as the metallic iron is formed it partially dissolves into the carbon forming a new and unique material with properties of both the carbon and iron but with capabilities exceeding ZVI in terms of rates of destruction and the range of halogenated compounds it can degrade. As manufactured, the product contains roughly 6.5% (wt) metallic iron. Reaction end products include dissolved iron, chloride, and a series of unregulated gases such as ethylene and methane. The product is insensitive to groundwater geochemistry (e.g. pH, oxidation-reduction potential).

BOS 100® Product Applications

The product is typically mixed with water to create a slurry that can be applied using a variety of techniques including: Direct push injection, soil mixing techniques, and trenching. It is commonly employed in plume wide treatment including treatment of source, mid, and downgradient plume regions. Plume area treatment is normally accomplished using slurry injection across the impacted thickness at a number of points located using a triangular grid pattern. Effective barriers can be constructed by injection using a tight point grid layout or through trenching or soil mixing. The product has been successfully used to treat excavation residuals by spraying slurry into the pit with subsequent mixing into the shallow soils of the excavation floor. Specialized injection techniques have been developed to address a variety of lithologic settings. BOS 100® has been successfully applied on hundreds of sites in North America and Europe since 2004 including dry cleaners, industrial, DOE, and DOD. Case studies describing the use of BOS 100® can be found on RPI's website at www.trapandtreat.com.

RPI Group

RPI Group is comprised of Remediation Products, Inc. (RPI) and a group of select remediation contractors that employ a three-pronged approach to ensure success: High density soil and groundwater sampling to support detailed conceptual site model development, expert design, and proven installation techniques to ensure distribution of the BOS 100® in the targeted intervals. The RPI Quality Assurance Laboratory located in Golden, CO provides cradle to grave analytical support throughout the project at no charge to the client. AST Environmental (AST) acts as RPI's Distributor & Training Affiliate for the installation contractors. A list of the contractors can be found at RPI's website..