

TECHNICAL DATA SHEET

Isotron

ORION™

Radionuclide Decontamination System

PRODUCT DATA

DESCRIPTION: Two-component, polymer emulsion coating system for removing radioactive contamination from urban areas.

PERFORMANCE CHARACTERISTICS: ORION can be applied after a contamination event to remove up to 80% of radioactive contamination. It has been tested and shown to be very effective towards Cs-137, Sr-90, and Co-60.

ORION is designed to extract radioactive forms of contamination that may have penetrated into porous media such as concrete.

Upon cure, ORION mechanically and chemically traps contaminants and can be peeled to remove contamination in a solid waste-form. This coating mitigates migration of ionic forms of radionuclides, such as cesium and iodine, which are known to be easily transported into building subsurfaces.

ORION is recommended for use in dirty bomb mitigation and remediation and for decontamination service throughout the nuclear complex.

SPECIFICATION INFORMATION

RECOMMENDED DRY FILM THICKNESS: 20-40 mils

THEORETICAL SOLIDS CONTENT: 45%

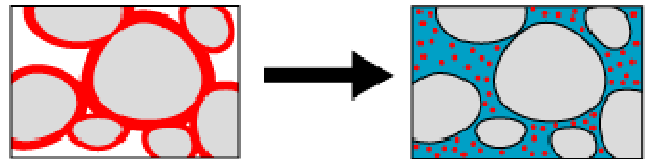
THEORETICAL COVERAGE PER GALLON: 33 sq. ft.

STORAGE CONDITIONS: Store indoors (do not freeze)

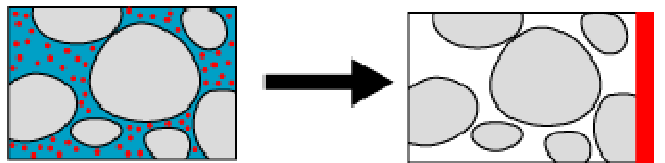
SHELF LIFE: 10 months at 75F

HOW IT WORKS

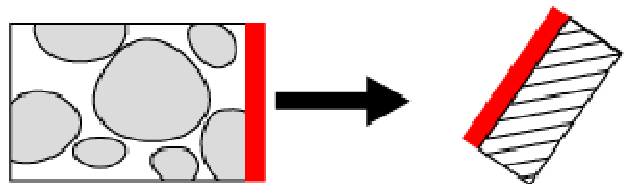
An example of contaminated concrete:



ORION chemistries shift the affinity of the contaminant from the concrete into solution where it is now mobile.



The contaminants are concentrated at the surface of the concrete through the drying process of the ORION coating.



The cured ORION coating is ready to be peeled from the surface, taking along the radioactive contaminant locked inside.