



CP Industries
560 North 500 West
Salt Lake City, UT 84116
(801) 521-0313
(800) 453-4931
(801) 539-0510 Fax

A COMPARISON OF SUPERIOR® SNO-N-ICE MELTER TO COMMON DE-ICING AGENTS ON CONCRETE CORROSION

A de-icing test was started on June 2, 1993, which tested the effectiveness of the SUPERIOR SNO-N-ICE MELTER product as compared to common de-icing agents in reducing corrosion on concrete blocks during freeze/thaw conditions. The following de-icing agents were used:

1. SUPERIOR SNO N ICE
2. Calcium Chloride
3. Rock Salt
4. Potassium Chloride

PROCEDURE:

Concrete blocks were frozen with 100 mls of water on top. The ice was then melted with 10 grams of the four de-icing agents. The blocks were subjected to approximately one hundred freeze/thaw cycles. The water was poured off the blocks after each thaw cycle. Duplicate blocks were used for each de-icing agent. The average amount of corrosion observed for both blocks was used in the final analysis for each de-icing agent.

RESULTS:

1. The results indicated that SUPERIOR SNO N ICE prevented corrosion of the concrete blocks better than calcium chloride, rock salt, or potassium chloride.
2. Calcium chloride caused more corrosion on the concrete blocks than SUPERIOR SNO N ICE.
3. Rock Salt and potassium chloride caused extensive corrosion to the concrete blocks.

Anna Lee Wilson, Chemist
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