Appendix D



### BEET 55<sup>™</sup> Liquid Organic Accelerator

- BEET 55<sup>™</sup> is a natural agricultural product that features snow and ice control performance superior to traditional brines, plus, it's 75 percent less corrosive.
- BEET 55<sup>™</sup> is derived from a renewable resource, sugar beet molasses, providing a sustainable and environmentally safe alternative.
- BEET 55<sup>™</sup> will reduce salt application rates by 50 percent and substantially reduce operating costs.
- BEET 55<sup>™</sup> is primarily used as a performance enhancer to salt brine, calcium and magnesium blends.

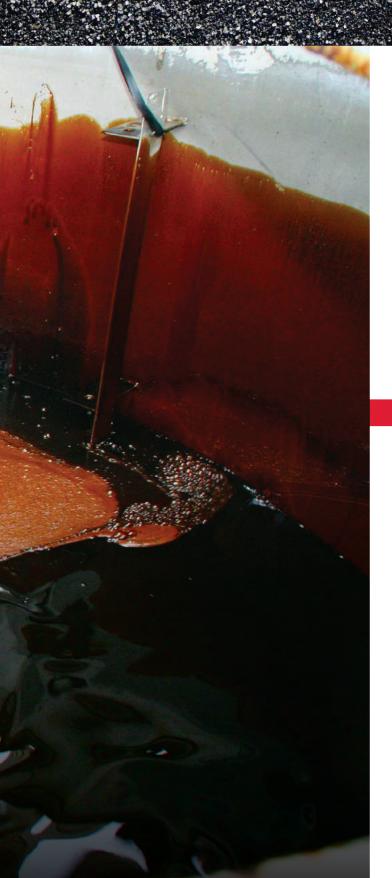


#### TYPICAL PROPERTIES

Appearance	Brown
Freeze Point	Minimum -6°F
Specific Gravity	1.275-1.34
рН	5.0-10.0
Weight	10.6 lbs/gallon

- BEET 55<sup>™</sup> products work faster and in a greater range of temperatures. BEET 55<sup>™</sup> products do not need sunlight to activate.
- BEET 55<sup>™</sup> will decrease salt and chloride usage up to 50 percent.
- BEET 55<sup>™</sup> is a renewable, environmentally safe product.





## BEET 55<sup>™</sup> Anti-icing Liquid Application

- BEET 55<sup>™</sup> is reccommended to be blended from 10 percent to 35 percent with salt brine and other chlorides.
- Apply 20 to 80 gallons per lane mile.
- Rates vary depending on environmental conditions.

## **Anti-icing Liquid Benefits:**

- Residual will last 5–10 days.
- Apply before storm event to prevent bonding.
- Decreases needed man hours and increases equipment efficiency.

# BEET 55<sup>™</sup> Deicing Liquid Application

- Rates will vary with depth of hardpack and temperature conditions.
- 20 to 80 gallons is recommended per lane mile.
- For severe hardpack and icy conditions add 10 percent calcium chloride to the anti-icing recommendations.
- Super blends are common blends of sodium chloride, BEET 55<sup>™</sup>, magnesium chloride or calcium chloride.

# **Deicing Liquid Benefits:**

- Residual will last 5-10 days.
- Faster, more powerful melting capacity.
- Decreases man hours and increases equipment efficiency.



### BEET 55<sup>™</sup> Salt Treatment

### **Stockpile Application**

- Add BEET 55™ at 5–6 gal/ton (21–25 liters/metric ton).
- Optional: add 1–2 gallons sodium/magnesium/calcium brine.



#### **Stockpile & Spinner Benefits**

- Prevents freezing and crusting and keeps salt free flowing (Applies to stockpile treatment).
- Reduces corrosion.
- Reduces salt application rate up to 50 percent.
- Specifically targets hardpack and ice.
- Helps reduces bounce and scatter loss.
- Beet 55<sup>™</sup> treated salt will cover up to 50 percent more area than untreated salt.

#### **Spinner Application**

- Add BEET 55<sup>™</sup> at 10 gal/ton.
- When treating with a BEET 55<sup>™</sup>/chloride mixture, use 15–30 gal/ton.

## **BEET 55™ Suggested Application**

- The suggested usage rates should be considered as starting points and adjusted based on weather expectations, current local conditions, performance levels and road usage.
- We recommend adding a superblend product at the spinner at temperatures below 15°F.

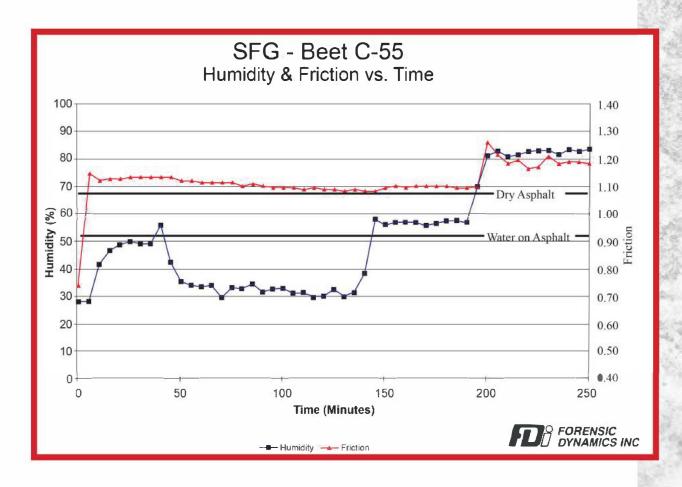






### **Friction Testing**

Many tests are performed to become a Clear Roads approved product. One of the tests required, with results shown here, is a friction test. Recognized for their dedicated research, Forensic Dynamics, Inc. is well-known for providing exceptional data results and graphs of the friction test results.



## BEET 55<sup>™</sup> & Friction Testing

BEET 55<sup>TM</sup> underwent strict testing by the Clear Roads research program and passed all testing. Above is the supplied friction test report. As you can see by using beet (red line) traction to pavement increased on wet pavement. The surprising aspect is that BEET 55<sup>TM</sup> improved traction on dry pavement. The test results are for you to look over. Call our sales staff team if you have any questions regarding BEET 55<sup>TM</sup>.