Does freezing affect Polecrete® Stabilizer chemical quality?

During the application of Polecrete Stabilizer, the chemicals should have been stored in a recommended temperature range of 10°C–32°C (50°F–90°F) for best results. But what if the chemicals at some point had been exposed to lower temperatures? Are the chemicals in danger of being less effective if they had been subjected to below freezing temperatures?

Testing Methods

Control Sample
Observation: Chemicals performed as expected under normal conditions.

0°C Freezer Sample
Observation: Chemicals did not solidify. Polyol appeared thicker in viscosity than the ISO. Color and consistency had no change. 50% headspace was introduced to verify the presence, or lack thereof, of precipitation in the container.

-64°C Freezer Sample
Observation: Chemicals froze solid. 50% headspace was introduced to verify the presence, or lack thereof, of precipitation in the container. Chemical expanded into the headspace and the plastic jug had a vacuum effect.

Results

2 Week Tests	Cream Time	Gel Time	Tack Free Time	Density	Compressive Strength	Head Space / Container
Control Sample	49 seconds	156 seconds	258 seconds	3.93 pcf	84 lbf/in^2	N/A
0°C	49 seconds	155 seconds	261 seconds	3.90 pcf	85	75%
-64°C	51 seconds	158 seconds	270 seconds	3.89 pcf	80	50%

Testing confirmed that there was no change in the properties of the chemicals. Color, appearance, reactivity and density were not affected when subjected to below freezing temperatures for a 2 week period. The plastic package was not compromised as no breakage occurred.