



# Commissioning Walk-In Freezers coated with SPARTACOTE™ Urethane Cement TDS 451

The commissioning process of a commercial freezer is very critical to avoid undue stresses and prevent possible structural damage to the concrete floor slab and/or SPARTACOTE™ Urethane Cement. Rapid thermal shock will damage the concrete substrate. Thoroughly read all technical data sheets, application guidelines, warranty disclaimers and Safety Data Sheets (SDS) prior to use. Application guides depending on the system employed are available at [www.laticrete.com](http://www.laticrete.com).

## Concrete Slab

Residual trapped moisture within the concrete slab will expand when frozen. The concrete must be able to withstand the tensile forces created when this occurs.

- The concrete slab must achieve a minimum of 3,500 psi compressive strength.
- The concrete slab must be cured a minimum of 28 days.
- Moisture content in the concrete slab must be less than 75% RH, or 4% actual moisture content.

## SPARTACOTE™ Urethane Cement

SPARTACOTE™ Urethane Cement must be allowed to fully cure and become stable before dropping the temperature. The installation area should be brought up to temperature to allow for the Urethane Cement to properly cure and bond to the concrete slab. The recommended curing temperature is 70° to 75°F (21° to 24°C) and should be maintained for 3-5 days. Once fully cured, SPARTACOTE Urethane Cement will be able to operate in a freezer range of -50 to 38°F (-45° to 3°C). However, it is important to avoid constant temperature cycling. Cracking due to structural movement, excessive deflection, or other failures in the substrate a structural and are not deemed a product defect.

- SPARTACOTE Urethane Cement must be allowed to fully cure before commissioning the Walk-In Freezer. Once the temperature is lowered below 40°F (4°C) curing will cease.
- Full cure generally takes 3-5 days at >70°F (>21°C) and 75% RH. Lower temperatures will result in longer cure times.
- Proper measures must be taken to isolate SPARTACOTE Urethane Cement from freezer walls to avoid cracking due to differential movement or compression of the insulation under the floor when fully loaded.

## Commissioning Process

The condensers in the freezer units are very effective at removing moisture from the concrete and may be utilized to speed the drying of the concrete floor slab. Once SPARTACOTE™ Urethane Cement has been allowed to fully cure, follow the procedure below to commission the freezer and bring it to the desired temperature.

1. Gradually lower the temperature to 32°F (0°C) and hold for 2 days.
2. Lower temperature in 10°F (5°C) increments. Hold each change for 2 days at the temperature before decreasing.
3. Repeat the process until the required temperature is achieved.

Technical Data Sheets are subject to change without notice. For latest revision, check our website at <https://laticrete.com>  
TDS 451.doc R 9 April 2020



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