



TECHNICAL INFORMATION

CES-210
11/25 SUPERSEDES 12/23 PAGE 1 OF 2

THAWING OF ARMOR SILICATE SOLUTIONS

1. SCOPE

- 1.1 This specification covers the following materials: CORLOK™ B Mortar Solution, HB™ Mortar Solution, K-14™ Mortar Solution and Tufchem™ Silicate Solution.
- 1.2 These potassium silicate solutions will freeze at temperatures slightly below 32°F (0°C). However, they can be thawed and recovered using the following technique. Additionally, using this technique on solution that has not been frozen will ensure it is of uniform consistency prior to use.

2. THAWING INSTRUCTIONS

- 2.1 Read precautionary information on container labels and Safety Data Sheets before handling. Place drums or pails on wooden pallets or other supports to raise them off the ground or floor, inside a heated room or temporary enclosure. Keep the top bungs on drums or lids on pails loosened while thawing to avoid pressurizing the containers. The contents of the containers should be warmed to approximately 70-85°F (21-30°C). Indirect fired heaters or radiant heaters may be used for heating the containers. Band-type drum heaters may also be used. The use of open-flamed devices (i.e. wood fires, oil fires, torches, etc.) is not recommended.
- 2.2 The time required for the solution to reach a temperature of 70-85°F (21-30°C) will depend on the size of the solution container, the degree to which the solution is frozen, the concentration of heat being applied, and whether the material is stirred while it is warming. For a small pail, 2-4 hours is generally sufficient, while for a full drum of solution may take 8-16 hours to reach the target temperature range. The silicate solution should be thoroughly mixed in the container in which it is supplied to yield a homogenous liquid of an opaque appearance, free any floc or precipitates. For best results in the shortest time, stir the material while defrosting, warming, and reconstituting. If the mixed solution does not achieve this appearance, consult the manufacturer.
- 2.3 A recommended method for stirring the contents within drum containers is to weld a 9"-12" (75 mm-100 mm) piece of 1" (25 mm) steel chain to the end of a 3/8" (9 mm) shaft of suitable length to reach the bottom of the drum, and then utilize this make-shift stirrer in a variable speed drill mixer. In the case of stirring the contents of pails, use the same technique as for drums or manually stir the pails. A thermometer should be available for measuring the temperature of the solution after it has been thawed and mixed. The solution should be brought to a temperature of 70-85°F (21-30°C).
- 2.4 A small test mix should be made before using material to ensure handling, work life and set time characteristics appear normal.

3. SAFETY PRECAUTIONS DISCLAIMER CONTACT INFORMATION

- 3.1 Consult current Safety Data Sheets before commencement of work.
- 3.2 While statements, technical information and recommendations contained herein are based on information our company believes to be reliable, nothing contained herein shall constitute any warranty, express or implied, with

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- 3.2 Please contact Armor for further information at +1-877-98ARMOR (982-7667) or customerservice@armor-inc.com

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