

Storage, Transportation, Shelf Life and Conditioning of LATICRETE® & LATAPOXY® Products TDS 132

LATEX BASED MEMBRANES AND TEMPERATURE – LATICRETE® latex based membrane materials (e.g. 9235 Waterproofing Membrane or HYDRO BAN®) should be stored at temperatures between 45° and 90°F (7° and 32°C) but should be tempered to reach a temperature of ≥70°F (21°C) for a minimum of 12 hours prior to use. This will ensure the proper consistency of the membrane liquid for installation. 9235 Waterproofing Membrane requires the surface temperature of the substrate to be between 45° and 90°F (7° and 32°C) during installation and for 24 hours after installation. HYDRO BAN requires the surface temperature of the substrate to be between 50° and 90°F (10° and 32°C) during installation and for 24 hours after installation. Please note that low temperatures will extend cure time.

CEMENT BASED MATERIALS AND TEMPERATURE – LATICRETE cement based products (e.g. 3701 Fortified Mortar, NXTTM Level Plus, 254 Platinum, 317 Mortar, PERMACOLOR® Select^, etc...) packaged in bags or cartons are not affected by high or low temperatures. These products can be shipped and stored at temperatures above 100°F (38°C) and below freezing without affecting the product. These products should be brought to and installed onto substrates that have a surface temperature range between 40° and 90°F (4° and 32°C). Please note that low temperatures will extend cure time.

<u>LATEX LIQUIDS</u> – LATICRETE latex additives (e.g. 4237 Latex Additive, 3701 Mortar Admix, etc...) should be stored off of the ground at temperatures between 32° and 110°F (0° and 43°C). Protect LATICRETE latex additives from freezing whenever possible. If material should freeze then place in a heated area and allow it to thaw completely and stir well before using. NOTE: Follow the guidelines above for cement based materials regarding surface temperature requirements.

MASTIC PRODUCTS –15 Premium Mastic should be stored at temperatures between 32° and 110°F (0° and 43°C). Installation of tile or stone using mastic should not be done when the surface or air temperatures are below 45°F (7°C) or above 90°F (32°C). Installation of tile or stone at temperatures between 45° and 59°F (7° and 15°C) requires an additional 24 – 48 hours of cure time prior to grouting.

<u>EPOXY RESINS AND TEMPERATURE</u> - The storage and working temperatures of epoxy liquids is very important to the working properties of the epoxy. The ideal storage and working temperature of the liquids when mixing should be between 60° to 90°F (16° to 32°C) unless otherwise indicated. At these temperatures the resins are liquid, easy to mix and have good working properties.

<u>EPOXY RESINS AND COLD TEMPERATURES</u> – When the temperatures fall below 60°F (16°C) epoxy resins become thick, difficult to mix, and they cure very slowly. LATAPOXY[®] SP-100 should not be mixed or applied if the temperature is below 60°F (16°C). SPECTRALOCK[®] PRO Premium Grout and SPECTRALOCK PRO Grout can be installed at temperatures down to a surface temperature of 40°F (5°C) but the cure time will be extended.

SPECTRALOCK 2000 IG is able to cure faster and at lower temperatures than other epoxy materials. This means that SPECTRALOCK 2000 IG can be installed at temperatures as low as 40°F (5°C). Working time and cure time will be extended.

If installation of epoxies must occur in cooler temperatures than it is suggested, it may be necessary to store the epoxy liquids at room temperature 70°F (21°C) to bring them to an easy, workable condition. Another method is to immerse the resin and hardener bags in warm water (110°F [43°C]) for one hour prior to mixing. Keeping the surface temperature of the substrate warm will also help during the application of the epoxy material.

<u>EPOXY RESINS AND HOT TEMPERATURES</u> – When the temperature rises above 90°F (32°C) the curing of epoxy is greatly accelerated. Pot life and working properties will be shortened (see chart below). Hot environments should be cooled when the air or substrate temperature is above 90°F (32°C).

If installation must occur in hotter temperatures then it is suggested to;

- 1. Store the resins at room temperature 70°F (21°C) for 24 hours, or place them in a cold area (e.g. refrigerator or cooler) if available.
- 2. DO NOT APPLY on exterior areas which are exposed to the sun and/or hot to the touch (>90°F/32°C). Epoxies can flash set and be extremely difficult to remove from the surface. Blisters and bubbles can also form in epoxy grouts when temperatures are high.
- 3. Mix the resin and hardener together and then quickly add and mix the SPECTRALOCK® Part C powder to the liquids and mix. Immediately remove the epoxy from the bucket and pour out of the container and onto the working surface (horizontal) or a plastic sheet. *Keeping the epoxy in the mixing container will cause the material to retain heat and cure at an even more accelerated rate.*

SEALERS, ENHANCERS & CLEANERS – STONETECH® sealers, enhancers and cleaners (e.g. BulletProof®, Enhancer ProTM, KlenzAllTM, etc...) should be stored above 32°F and below 100°F (0° and 38°C) unless otherwise noted on product data sheet. Do not allow to freeze. Surface temperature should be between 50°F and 80°F (10° and 27°C) during use unless otherwise noted on product data sheet.

LATICRETE International, Inc. manufactures a wide variety of tile installation materials. Although they are easy to install they do require certain temperature ranges whether you're installing or just storing the LATICRETE products. We have created a list of many LATICRETE products and their temperature requirements so that it may be helpful to you when working with and storing the product.

Product	Working Properties	Shelf Life
LATICRETE® Latex Membranes ■ 9235 Waterproofing Membrane ■ HYDRO BAN® ■ HYDRO BARRIER™ ■ Blue 92 Anti-Fracture Membrane	See appropriate product data sheets for specific working properties and temperatures.	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at temperatures >32°F (0°C) and 110°F (43°C).
LATICRETE Cement Products	See appropriate product data sheets for specific working properties and temperatures.	Factory sealed containers are guaranteed to be of first quality for two (2) years if stored off the ground in a warm area.
LATICRETE Premium Latex Additives	See appropriate product data sheets for specific working properties and temperatures.	Factory sealed containers are guaranteed to be of first quality for five (5) years if stored off the ground at temperatures >32°F (0°C) and <110°F (43°C).
LATICRETE Latex Additives 101 Rapid Latex Admix 40 Multi-Use Acrylic	See appropriate product data sheets for specific working properties and temperatures.	Factory sealed containers are guaranteed to be of first quality for two (2) years if stored off the ground at temperatures >32° F (0°C) and <110° F (43°C).
125 Sound & Crack Adhesive	40 min. open time at 70°F (21°C) 2 – 4 hours pot life at 70°F (21°C) 24 hour time to foot traffic at 70°F (21°C)	Factory sealed containers of this product are guaranteed to be of first quality for one (1) year if stored off the ground in a dry area. Product must not be allowed to freeze prior to use and full cure time.
15 Premium Mastic	60 minute open time	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at temperatures >32° (0°C) and <110°F (43°C).
SPECTRALOCK® PRO Premium Grout*	30 min. working time at 95° F (35°C) 80 min. working time at 70° F(21°C) 120 min. working time at 40° F (4°C) (substrate temperatures)	Liquids - 2 years if stored at temperatures >32°F (0°C) and <95°F (35°C). Part C Powders - Unlimited shelf life
SPECTRALOCK PRO Grout	30 min. working time at 95° F (35°C) 80 min. working time at 70° F(21°C) 120 min. working time at 40° F (4°C) (substrate temperatures)	Liquids - 2 years if stored at temperatures >32°F (0°C) and <95°F (35°C). Part C Powders - Unlimited shelf life
LATAPOXY® SP-100	Substrate temperature between 60° F (16° C) and 90° F (32°) 1 hour working time at 70° F (21° C)	2 years if stored at temperatures >32°F (0°C) and <110°F (43°C). Part C Powders – Unlimited shelf life
LATAPOXY 300 Adhesive	Pot life 45 min. at 70°F (21°C) Do not install when surface temperature is below 60°F (16°C) or above 90°F (32°C).	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at >32°F (>0°C) to <110°F (<43°C).
LATAPOXY 310 Stone Adhesive	100 min. pot life at 40° F (4° C). Set time is 10 hrs. 45 min. pot life at 70° F (21°). Set time is 5-6 hrs. 25 min. pot life at 90° F (32° C). Set time is 2.5-3 hrs. Surface temperature for application: 50° F (10°C) to 95° F (35°C).	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at >32°F (>0°C) to <110°F (<43°C).

LATAPOXY® 310 Rapid Stone Adhesive	Pot life @ 70° F (21°C) is 3-5 min. Set time@70° F (21°) is 5-8 min. Surface temperature for application: 50° F (10°C) to 95° F (35°C).	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at >32° F (>0° C) to <110° F (<43°).
LATAPOXY 210 Adhesive	Open time is 1 hour at 70° F(21°C) Pot life is 1 hour at 70° F(21°C) All surfaces should be between 40° F (4°C) and 90° F (32°C).	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at >32° F (>0° C) to <110° F (<43°C).
LATAPOXY Waterproof Flashing Mortar	Allows flood testing in 24hrs at 70° F(21°C) Surface temperature must be 45-90° F (7-32°C).	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at >32° F (>0° C) to <110° F (<43°C).
LATICRETE NXT Vapor Reduction Coating DRYTEK Moisture Vapor Barrier	Pot Life 15- 20 min. at 70° F(21°C) Surface temperature must be between 50° F (10°C) and 90° F (32°C) during installation and for 24 hours after installation.	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at >32° F (>0° C) to <110° F (<43°C).
SPECTRALOCK® 2000 IG	Working time is 80 min. at 70° F(21°C) Surface temperature must be between 45° F (7°C) and 90° F (32°C).	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years. Part C Powders – Unlimited shelf life
LATASIL™	7 – 10 minute tooling time 17 minute tack free time at 77°F (25°C) and 50% RH	When stored in the original, unopened containers at or below 90°F (32°C), this product has a 1 year shelf life.
LATASIL 9118 Primer	30 minute cure time at 70°F (21°C)	When stored in original, unopened containers at or below 90°F (32°C), shelf life is 6 months from date of manufacture. Container should be kept tightly sealed when not in use.
Premium Acrylic Caulk	20 minute open time 48 hour set time 2 week full cure time	Factory sealed containers of this product are guaranteed to be of first quality for (2) years if stored at >32° F (>0° C) to <110° F (<43°C).
STONETECH Sealers, Enhancers & Cleaners	See appropriate product data sheets for specific working properties and temperatures.	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at temperatures >50°F (10°C) and <90°F (32°C).

Fully Cured, Installed, In-Service Temperature Exposure

Product	Intermittent Temp	Constant Temp
LATICRETE Latex Membranes	-20° to 280°F (-29° to 138°C)	
LATICRETE Cement Products	350°F (177°C) Maximum	
15 Premium Mastic	140°F (60°C) Maximum	
SPECTRALOCK 2000 IG	360° F (182°C)	185° F (85°C)
LATAPOXY 310 Stone Adhesive	360° F (182°C)	160° F (71°C)
LATAPOXY 310 Rapid Stone Adhesive	360° F (182°C)	160° F (71°C)
LATAPOXY Waterproof Flashing Mortar	360° F (182°C)	160° F (71°C)
LATICRETE NXT Vapor Reduction Coating DRYTEK Moisture Vapor Barrier	360° F (182°C)	160° F (71°C)
LATAPOXY 300 Adhesive	360° F (182°C)	160° F (71°C)
LATAPOXY SP-100	250° F (121°C)	150° F (65°C)
SPECTRALOCK PRO Premium Grout	250° F (121°C)	150° F (65°C)
SPECTRALOCK PRO Grout	250° F (121°C)	150° F (65°C)
LATASIL	-40° to 350°F (-40 to 177°C)	
Premium Acrylic Caulk	0° to 180°F (-18° to 82°C) - Sanded -20° to 180° (-29° to 82°C) - Unsanded	

For more information on tile or stone installations in cold weather, please refer to LATICRETE TDS 175 "Cold Weather and LATICRETE"; or, for installation of tile or stone in hot weather please refer to LATICRETE TDS 176 "Hot Weather and LATICRETE."

Technical Data Sheets are subject to change without notice. For latest revision, check our website at www.laticrete.com
TDS 132.doc

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^{*} United States Patent No.: 6,881,768 (and other Patents)

[^] United States Invention Patent No.: 6,784,229 (and other Patents)