

Globally Proven Construction Solutions

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

TDS 1132

<u>LATEX BASED MEMBRANES AND TEMPERATURE</u> – LATICRETE[®] latex based membrane materials (e.g. HYDRO BAN[®]) should be ideally stored at temperatures between 7°C and 32°C but should be tempered to reach a temperature of $\geq 21^{\circ}$ C for a minimum of 12 hours prior to use. This will ensure the proper consistency of the membrane liquid for installation. HYDRO BAN requires the surface temperature of the substrate to be between 10°C and 32°C during installation and for 24 hours after installation. Please note that low temperatures will extend cure time.

<u>**CEMENT BASED MATERIALS AND TEMPERATURE**</u> – LATICRETE cement based products (e.g. 3701 Fortified Mortar, LATICRETE LEVEL, 254 Platinum, 315 Mortar, PERMACOLOR[®], etc...) packaged in bags or cartons are not affected by high or low temperatures. These products can be shipped and stored at temperatures above 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 4° and 32° C. Please note that low temperatures will extend cure time.

LATEX LIQUIDS – LATICRETE latex additives (e.g. 4237 Latex Additive, 3701 Mortar Admix, etc...) should be stored off of the ground at temperatures between 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.

<u>MASTIC PRODUCTS</u> – Multimastic Premium should be stored at temperatures between 0° and 40° C. Installation of tile or stone using mastic should not be done when the surface or air temperatures are below 7°C or above 32°C. Installation of tile or stone at temperatures between 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 16°C 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 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 16°C. SPECTRALOCK® PRO Premium Grout and SPECTRALOCK PRO Grout can be installed at temperatures down to a surface temperature of 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 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 21°C to bring them to an easy, workable condition. Another method is to immerse the resin and hardener bags in warm water 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 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 32°C.

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

- 1. Store the resins at room temperature 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 >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.

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

LATICRETE Australia 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 HYDRO BAN®	Surface temperature must be 10°C – 32°C, Provide protection for newly installed membrane, even if covered with a thin bed ceramic tile, stone or brick installation, against exposure to rain or other water for a minimum of 24 hours at 21°C and 50% RH.	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at temperatures >0°C and 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 one (1) year if stored off the ground in a warm area.
LATICRETE Premium Latex Additives • 4237 Latex Additive • 3701 Mortar Admix	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 >0°C and 43°C.
LATICRETE Latex Additives 101 Rapid Latex Admix	When mixed with 315 Super Floor & Wall: 20 minutes open time at 21°C, 30 minutes pot life at 21°C, 6 hours time to foot traffic 21°C.	Factory sealed containers are guaranteed to be of first quality for two (2) years if stored off the ground at temperatures >0°C and 43°C.
LATICRETE PRIMER	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 one (1) year if stored at temperatures >0°C and <35°C.
PRIME-N-BOND™	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 one (1) year if stored at temperatures >0°C and <35°C
125 TRI-MAX Adhesive	40 min. open time at 21°C, 2 — 4 hours pot life at 21°C, 24 hour time to foot traffic at 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.
Multimastic Premium	45 minute open time at 21°C, 6 hour pot life at 21°C.	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at temperatures >0°C and 40°C.
SPECTRALOCK [®] PRO Premium Grout*	30 min. working time at 35°C, 80 min, working time at 21°C 120 min, working time at 4°C (substrate temperatures).	Liquids - 2 years if stored at temperatures >0°C and <35°C. Part C Powders - Unlimited shelf life.
LATAPOXY® SP-100	Substrate temperature between 16°C and 32°C, 1 hour working time at 21°C.	2 years if stored at temperatures >0°C and <43°C. Part C Powders — Unlimited shelf life.
LATAPOXY 300 Adhesive	Pot life 45 min. at 21°C. Do not install when surface temperature is below 16°C° or above 32°C.	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at >0°C to <43°C.

LATAPOXY 310 Stone Adhesive	100 min. pot life at 4°C. Set time is 10 hrs. 45 min. pot life at 21°C. Set time is 5-6 hrs. 25 min. pot life at 32°C. Set time is 2.5-3 hrs. Surface temperature for application: 10°C to 35°C	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at $>0^{\circ}$ C to $<43^{\circ}$ C.
LATAPOXY® 310 Rapid Stone Adhesive	Pot life @ 21°C is 3-5 min. Set time @ 21°C is 5-8 min. Surface temperature for application: 10°C to 35°C.	Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at $>0^{\circ}$ C to $<43^{\circ}$ C.
LATAPOXY Moisture Sheild	Pot life is 120 min. at 25°C. Surface Temperature must be between 10°C and 35°C during application and for 24 hours after installation.	Factory sealed containers of this product are guaranteed to be of first quality for one (1) year if stored at >0°C and <43°C. Do not allow to freeze.
SPECTRALOCK® 2000 IG	Working time is 80 min. at 21°C. Surface temperature must be between 7°C and 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 $25^\circ \rm C$ and $50\%~\rm RH$	When stored in the original, unopened containers at or below 32°C, this product has an 18 month shelf life.
LATASIL 9118 Primer	30 minute cure time at 21°C	When stored in original, unopened containers at or below 32°C, shelf life is 6 months from date of manufacture. Container should be kept tightly sealed when not in use.
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 tem- peratures >10°C and <32°C. Do not allow to freeze.

Fully Cured, Installed, In-Service Temperature Exposure

Product	Intermittent Temp	Constant Temp
LATICRETE Latex Membranes	-29°C to 138°C	
LATICRETE Cement Products	177°C Maximum	
Multimastic Premium	60°C Maximum	
SPECTRALOCK 2000 IG	182°C	85°C
LATAPOXY 310 Stone Adhesive	182°C	71°C
LATAPOXY 310 Rapid Stone Adhesive	182°C	71°C
LATAPOXY Moisture Shield	121°C	71°C
LATAPOXY 300 Adhesive	182°C	71°C
LATAPOXY SP-100	121°C	65°C
SPECTRALOCK PRO Premium Grout	121°C	65°C
LATASIL	-40°C to 177°C	
STONETECH [®] and Stone Care Products	Limited by tile or stone installation materials	

For more information on tile or stone installations in cold weather, please refer to LATICRETE TDS 1175 "Cold Weather and LATICRETE"; or, for installation of tile or stone in hot weather please refer to LATICRETE TDS 1176 "Hot Weather and LATICRETE."

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

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