ROCK-TRED
POLYMER COATING SOLUTIONS
Defining Excellence Since 1939

ROCK-TRED's ELASTI-THANE PARKING DECK SYSTEM Installation Guidelines

This tech guide provides a working outline to install ROCK-TRED's ELASTI-THANE PARKING DECK systems. ELASTI-THANE PARKING DECK Systems can be specified for use with or without a separate waterproofing membrane, for either indoor applications or for UV stable outdoor applications and can be created with varying degrees of thickness and texture depending on the job conditions. All of ROCK-TRED's ELASTI-THANE Products require 5-10 days lead time as they are among our few products that are batched and packaged to order due to their shorter shelf life.

Step 1 - Preparation:

Regardless of how the system will be finished we recommend the concrete substrate be mechanically prepared via diamond grinding or shot-blasting to a minimum CSP-2 profile. For heavier traffic systems we recommend shot-blasting to a CSP-3 profile. Hydro blasting is also an acceptable means of preparation as long as a CSP-2 or CSP-3 profile is produced and the concrete is allowed to dry sufficiently prior to installation of the system. All non-moving cracks, joints, spalls, etc. should be pre-patched using suitable materials such as POXI-ROCK FLOORING MORTAR, CRACK N PATCH, RQP or ELASTI-THANE BASECOAT extended with aggregate. All moving joints should be honored and filled with either ELASTI-THANE BASE COAT or ELASTI-POXI JOINT FILL depending on the job conditions, level of flexibility required and type of substrate. Engineered expansion joints in parking decks may require treatment with a pre-formed flexible expansion joint insert or bridge. Call ROCK-TRED for information on specifying or obtaining materials to create engineered expansion joints as part of an ELASTI-THANE PARKING DECK System.

Step 2 - Priming:

After preparation and rigid patching a prepared concrete surface should be primed with an application of POXI-ROCK PRIMER at a spread rate of approximately 100-150 square feet per gallon (depending on substrate porosity) or with CHEM-ROCK WB Primer at a spread rate of approximately 200-250 square feet per gallon (depending on substrate porosity). As the primer is being applied a partial broadcast of PCA322 aggregate should be broadcast and back rolled into the coating to promote bonding of subsequent ELASTI-THANE coats. Remember to prime any vertical terminations where future coats of ELASTI-THANE are to be applied partially up walls, curbs, etc.

Step 3 - Waterproofing Membranes:

All ELASTI-THANE products have some inherent flexibility and will provide a sealed and waterproof surface when applied monolithically. However, when long-term waterproofing or crack bridging is required, or when thermal cycling is present, a more flexible and more elastic

ELASTI-THANE MEMBRANE undercoating is required prior to installing the more abrasion resistant and less flexible intermediate and finish coatings.

ROCK-TRED manufactures two versions of our ELASTI-THANE MEMBRANE. Both are highly flexible, aromatic urethane coatings with low abrasion and low UV resistance and so should always be top coated. Our original ELASTI-THANE MEMBRANE is only available in Light Gray and has a solvent odor during application and therefore should be applied in well ventilated areas only. Our newer ELASTI-THANE MEMBRANE WB is manufactured in an off-white color base that can be pigmented using ROCK-TRED UNIVERSAL COLORANTS. It is very low VOC and is suitable for application in open or enclosed areas. Either version of ELASTI-THANE MEMBRANE can be applied after the primer is cured in one heavy coat at approximately 65 square feet per gallon. When applying be sure to coat up all vertical terminations points for full waterproofing. Either ELASTI-THANE MEMBRANE may also be used to saturate ROCK-TRED's FIBER-MAT or FIBER-TAPE and used to create waterproof flashing around penetrations. Allow the MEMBRANE coating to cure prior to applying the next coating.

Step 4 - ELASTI-THANE INTERMEDIATE COAT:

When used as a seed coat in medium-heavy duty broadcast systems:

If a broadcast layer is required as part of the ELASTI-THANE System apply a coat of ELASTI-THANE INTERMEDIATE at an approximate spread rate of 80-100 square feet per gallon and broadcast to rejection using approximately ½ pound per square foot of graded quartz selected to provide adequate texture. The standard broadcast aggregate for "medium textured" ELASTI-THANE Systems is PCA323 quartz. More aggressive aggregate such as PCA333 30 grit aluminum oxide or PCA330 Heavy Wear Blend (blended quartz and aluminum oxide) should be used in wet, inclined or tight radius turns. This broadcast step may be repeated to increase the thickness and overall durability of the system. High traffic areas should receive at least one broadcast, but will provide more long-term durability if a second broadcast is installed.

When used neat in light-medium duty systems:

For light or medium duty traffic areas that do not require a perfectly uniform anti-slip finish ELASTI-THANE INTERMEDIATE can be applied neat over either a primed surface or over one of the ELASTI-THANE MEMBRANE coatings. Single coat application thickness can range from 40 – 100 square feet per gallon depending upon the job requirements. ELASTI-THANE INTERMEDIATE is an aromatic urethane produced only in Gray and does not provide long-term color stability. It is best suited as an intermediate coating, but can be used as a finish coating where no UV is present and when color stability is not an issue.

Step 5 - ELASTI-THANE Finish Coating Options:

ROCK-TRED manufactures two finish coatings for the ELASTI-THANE Systems. Our ELASTI-THANE TOPCOAT V.2012 is a WATER CLEAR, medium-high viscosity, 98% solids, aliphatic,

indoor/outdoor, highly versatile finish coating with up to 500% elongation properties. ELASTI-THANE TOPCOAT V.2012 is tough enough to handle the heavy traffic associated with parking structure use, but is UV stable and will remain water clear allowing it to be used not only as a superior solid color parking deck coating, but also as clear finish coating over decorative flake and colored quartz broadcasts. ELASTI-THANE TOPCOAT V.2012 is engineered to be field pigmented with any of ROCK-TRED's STANDARD COLORS. When applied as a finish coat over a full broadcast of aggregate coverage should not exceed 80 square feet per gallon. When applied as a neat coating over other ELASTI-THANE Products or a suitable primer ELASTI-THANE TOPCOAT V.2012 can be applied at up to 135 square feet per gallon. Additional anti-slip aggregate such may be broadcast and back rolled during application to increase the finished system's coefficient of friction.

ELASTI-THANE TOPCOAT V.2011 is an aliphatic, single-component, lower viscosity, 80% solids polyurethane finish coating available in a limited variety of ROCK-TRED Standard Colors. ELASTI-THANE TOPCOAT V.2011 provides a very durable wear surface excellent elongation and abrasion resistance. Being a moisture cured product ELASTI-THANE TOPCOAT V.2011 should only be applied when there is some humidity present in the air or the cure may be affected. Thinner coats at approximately 100-135 square feet per gallon are recommended. Additional anti-slip aggregate may be broadcast and back rolled during application to increase the finished system's coefficient of friction.