

Hydrotech Coating Systems

Dura-Systems Specification Advisory

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SURFACE TEXTURES ON DURA SYSTEM MEMBRANES

DURA SYSTEM Membrane Systems are used in a wide variety of applications, ranging from our “normal” walking deck systems with rubber granules for slip resistance, to a 200,000 sq. ft. of bare membrane under the Aquarium of the Americas in New Orleans. That membrane was placed in order to waterproof and protect the concrete and re-bar of the old water front docks that the park and aquarium complex is built on. An interesting surface treatment!

DURA SYSTEM Membranes provide waterproof surfaces outdoors, rustproof & flexible decking systems on storm-tossed ships and thick seamless Mono-Mat Systems that provide sanitary cushioned flooring for zoo and veterinary uses.

Surface treatments can run the gamut from smooth to very rough for maximum slip resistance. (On the pitching decks of some North Sea fishing boats, in addition to the rubber texture, the coatings contractor also back-rolled large grit aluminum oxide into the DURA-FLEX for a really rough and traction enhanced surface. Not a surface for everyone, but one that meets their particular needs on storm tossed and pitching wet ship decks.)

No one surface texture can do it all. The end use customer has to be involved in the texture choices and options in order to make an informed decision. These options range from esthetics and cost concerns to slip-and-fall safety needs. Informed customers are good customers. They alone are responsible for making the final texture decision.

The general rule of thumb is that the more aggressive the surface texture, the harder it is to clean. For example, ski resorts need the traction of a heavy texture for safety reasons and only worry about clean-ability as a secondary concern. (Squaw Valley ski resort turns fire hoses on their DURA SYSTEM decks.) In the interior uses at ski resorts, the need for heavy traction enhancement is still there, so they use wet-dry industrial floor cleaning machines to scrub and vacuum up the dirty water. Cleaning is sometimes just a function of changing the way it is done. Mops will catch and pull on any textured surface, so when cleaning small areas, scrub with a stiff broom and use a simple wet-dry shop vac to suck up the dirty water. (Using a fire hose does seem like more fun though!)

Some coatings contractors use cementitious “knock-down” splatter coats and decorative-pattern acrylic systems on top of the DURA SYSTEM Membranes when reliable waterproofing is needed underneath. Just follow the DURA SYSTEM Specification “Waterproofing Under Floor Tile Systems”, where a sand surface is applied on top of the membrane for bonding purposes for the thin set mastic and tile.

One interesting texture option finding a very strong acceptance in the veterinary Mono-Mat System market is using rubber texture granules and lightly sanding off their sharp tips. This leaves a “truncated cone” effect that provides a textured surface that is much easier to clean and maintain in animal habitats. It is actually “mop-able”. It looks like a fine rubber knock-down finish and provides a nice random design surface that will stand up to much harder usage than a smooth membrane with only a DURA FLEX finish. It is also easy on bare feet, such as around a hot tub or swimming pool.

The trick to doing this surface is simple. The membrane and rubber granule system is applied as usual. One light DURA FLEX coat is applied and allowed to dry. Then the rubber granules can be sanded down just a little to knock off the tips. Without a light DURA FLEX to “stiffen” the rubber, the granules flex too much to sand. Then DURA FLEX is applied as normal at the specified rate. (Do not try this system without some practice! It is very easy to over-sand the granules and get an uneven look. Practice makes perfect!) Try it when you have some left over materials. It’s a very versatile surface option that you can add to your customer’s choices.

APPLICATION HINTS WHEN USING THE RUBBER GRANULE SURFACE.

Early development work was done at a ski resort in Lake Tahoe, CA. (What better place to test the limits of decking materials. Weather extremes and ski boot wear & tear will show the mettle of a coating material in a very short time!) Where sand textures simply crush into powder under heavy traffic, the rubber will grip, flex and snap back. The rubber texture is also much quieter to walk on. Noise reduction at ski resorts and on metal ship decks is noticeable.

Rubber granules also speed up the application process because they can be broadcast onto the wet membrane and not sink in as sand will. Even if some of the granules sink in, it is rubber into rubber, and will not break down or cause pin holes as sand in the membrane will. Wait 15 or so minutes after the membrane has been applied to heavily broadcast the rubber granules on to rejection. Experience is the best – and only! – teacher when it comes to application techniques.

One 50 lb. bag of texture rubber will broadcast about 250 sq. ft. The idea is to apply an excessive amount of rubber to insure an even application to the surface. If you try to “chicken feed” the surface, it will end up looking uneven. It is best to broadcast to rejection and bury the deck and sweep up the excess when the membrane becomes walk able. About 1/3 of the rubber can be swept up and saved for re-use. Working out of bags is difficult; they tip and fall over a lot! So it is much easier to transfer the rubber to plastic trash cans with locking lids for storage, use and re-use. Also refer to the DURA SYSTEM ADVISORY “BACKROLLING – Why, When & How” for additional information and hints. **SURFACE TEXTURES ON TUFFLEX MEMBRANES.**