

Deck Coatings and Their Care By Bill Leys

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Waterproof deck coatings and Condominiums seem to go hand in hand in western states. It seems that nearly every HOA complex has them, either over a living space or attached off a room. Residents love them because their decks are often used as another room of the house, the Board of Directors and HOA managers usually detest them because of the problems that seem to always come along with them.

Some Associations Boards seek to minimize their exposure to these problems by seeking to change the CC&R's, making owners responsible for these exclusive use areas. Other Boards just put their heads in the sand, repairing decks as a complaint comes in, usually with the bare minimum of work to stop the deck from leaking. Smart managers and Boards will tackle the problem head on, looking to get their deck problems under control right away. As a former HOA manager, I saw first hand how ignoring maintenance on waterproof decks could be very expensive.

The cost of a new waterproof coating isn't cheap, but the cost of repairing dry-rotted

framing supporting the deck is a lot worse. An Association I once managed signed a contract for resurfacing eight decks in Pismo Beach, CA. That contract turned from an \$8,000.00 + resurfacing into over \$100,000.00 in dry-rot repairs when it was all over. The Association had deferred the maintenance required by the manufacturer for several years beyond the recommended maintenance schedule, allowing the surface to degrade to the point where water was able to penetrate into the framing and rot it from the inside out.

Inspections

The key to preventing decks from becoming a problem is in inspecting the decks. Often times the manager and or the Board will walk the Associations common area property for inspection of the components the Association is responsible for.

Typical items that are checked are downspouts and gutters; the condition of the paint on the buildings, the roof and whatever else can be readily viewed from the street and sidewalks. As waterproofed decks are typically on the second or third floor, they usually are never inspected. Access through the home is difficult to arrange with owners and what manager or Board member

really wants to climb a ladder?



Therefore, the decks just linger by themselves, never really thought of until an owner calls to say that water is dripping into their home from the deck above them during the biggest rainstorm of the season. Then the deck problem raises its ugly head, causing the manager to go into crisis management mode, calling a handyman out to temporarily cover the deck, waiting for a deck company to come out and look at it, getting the Board to approve the repair, all of which can take a month or more. The owner is frustrated because their deck leaks, the manager is frustrated because he or she hears from the owner 2-3 times with complaints, the deck company is usually busy with lots of leak calls and it takes forever to get anything done that cures the problem.

Frequent (at least once per year) inspections will help eliminate problems. Catching small problems before they become big problems can save considerable sums of money from having to be

spent on framing repairs due to leaks. Summer is an ideal time to inspect decks, it isn't raining and there is some time before the winter storms begin anew to get bids and make needed repairs. The inspection needn't be a difficult thing to do; there are many things to look for

that a layman can spot pretty easily. If the Association or management firm has a deck company that they trust, perhaps hiring them as an

outside source to perform the inspections would work well. Digital cameras can be used to provide photo documentation of the conditions found, allowing the manager and Board to get an exact idea of the problems that they may be facing.

When doing your own inspections, it will be helpful to know what type of deck coating is on the decks. A brand name helps, but more importantly, knowing what type of material has been applied is better. Elastomeric, urethane, lightweight concrete and floating systems are typical coating materials in use on many decks. In knowing what type deck coating you have, you will be able to know how often the deck will need to be maintained.

Warning signs to look for on your deck inspection include cracks in the deck coating, nails popping through the coating from the subsurface, delaminating paint and bubbles in the coating surface. Any of these items found is a sign that the waterproof surface has been compromised. Owners should be looking for these warning signs too, as well as looking for stains on their ceiling or walls in the home below their deck. Metal flashing can be checked for signs of rust, pulling loose from the deck coating or if it is bent or broken.



Lack of maintenance has allowed UV to destroy this expensive coating!

If you find these problems on a deck, a simple check of the condition of the substrate underneath can be achieved by using your foot to check for softness. Be careful, it may be so soft that your foot could go through the deck in a worst-case scenario! Soft substrate is indicative of what could be a bigger problem underneath, dry-rotted framing and/or termites. The other hot button in today's HOA world is mold and

mildew. This may exist underneath also.

Another thing to look for when performing inspections is checking to see what's on the deck-plants, tables, umbrellas, grills, carpet, etc. Table legs, grills, sharp objects and high heels can damage soft deck coatings. Plants in direct contact with the surface need to be raised up to allow air to circulate and dry off the water used to moisten the plants. Softer deck coatings aren't always able to have these items in direct contact with the coating, often caster cups will need to be used to protect the coating.

Indoor/outdoor carpet is often put down on a deck by an uninformed owner, usually to cover over an ugly, degrading deck surface. This is the worst thing an owner can do to their deck as it locks in any moisture trapped underneath, which may allow dry-rot to set in.



Indoor/outdoor carpeting is bad for decks, they trap water underneath!

Charcoal grills can drop hot coals onto the surface, burning through the waterproof layers of soft deck

coatings. Grease from gas and charcoal grills will stain the deck, if not cleaned off soon after spilling.

Maintenance

Maintenance is the key to a long lasting deck. I have seen decks that are designed to last 25-30 years with proper care, that are ruined beyond repair within 5-10 years after being installed due to ignoring or delaying the maintenance it needs.

Just like a car, deck coatings need to be washed occasionally. A good cleaning will rinse dirt away that can wear down the coating. Just like the buildings, the deck needs to be painted/resealed on the schedule recommended by the manufacturer. All waterproof coatings sealant needs to be renewed, sometimes as often as every two-three years. The topcoat is a specialized paint/sealer, formulated to protect and seal the under layer (which is where the waterproofing material is). The topcoat is usually applied at the rate of about 8-10 mils thick, by brush, roller or spray. UV (sun) rain and foot traffic will wear this protective layer away at a rate of 3 mils per year. Even though the deck may look pretty good and the paints color is still there, by year 3 there is little protection afforded to the

under layer. Continued deferred maintenance is the beginning of the end of the decks usable life, often resulting in expensive repairs.



Nothing should be allowed to be screwed through the deck coating!

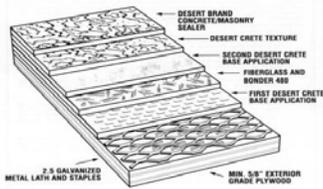
As a general rule, soft deck coatings (urethanes, elastomeric's and floating systems) will need more frequent maintenance than hard concrete based deck coatings. They also have a greater chance of failing prematurely if they are not maintained as recommended. Concrete based systems are usually more forgiving if not maintained according to the manufacturer's schedule. Consult with the manufacturer or deck coating installer if you are not sure what you have.

Selecting a New Deck Coating System.

To assist Boards and their managers in getting the best deal for their money, here are some ideas to put into use when bidding for new coatings to renew the old coatings at your Associations.

As always, you'll want to get at least 2-3 vendors to bid your job. Arrange a site visit where all bidders can come at the same time and review the job, they can ask questions that all of them can get the same answer to. Having their respective manufacturer's sales representative review the job will be beneficial too. The sales representative should write the specifications for the contractor to use to bid on. Ask each contractor bidding your work what deck system they are proposing to install. Tufflex®, Mer-Kote®, Pacific Polymers®, Dex-O-Tex®, Desert Crete® and Life Deck® are common brand names. Watch out for deck coatings that aren't proprietary systems, manufactured by a bona fide chemical company. Some deck companies "cook up" their own deck coatings, seeking to minimize their costs on materials. While some companies who do this may have a coating system that works pretty well, there won't be any independent manufacturer's support if any problems arise before, during or after the installation.

DESERT CRETE DECKING SYSTEM



A cut away of a typical deck coating system.

Ask your installer to provide you with the manufacturer's information, including their name, address and telephone number. Don't be afraid to call the manufacturer and speak with that firm's sales representative. Ask them to make a site visit, write the specifications for the work necessary, then review the work during and after the installation and provide you with a written warranty.

When selecting your deck system, there are a lot of choices available. Since it is usually difficult to get an "apples to apples" bid with 2 or 3 contractors all bidding the same system, the problem is compounded when you are comparing different coating systems. Each system may offer advantages and disadvantages over the other. What works great on concrete decks may not work so well over a plywood/OSB* substrate deck.

* Some manufacturers will not warranty their product over OSB, which is not recognized as suitable

substrate by the International Conference of Building Officials (ICBO). Be sure to ask your bidders whether this is the case with their product. Others may grant a special exemption if conditions warrant.

Urethane, elastomeric's, floating systems and metal lath and polymer modified concrete acrylic systems are commonly heard terms in describing deck-coating systems. Understanding what you are buying is critical to your project's success. Many coating products can have long curing times, necessitating keeping the decks closed for a long period of time, sometimes for 24 hours. Does your Association have residents who would be adversely affected by being locked in or out of their home, sometimes for days while a new system is being installed? Some may have odors associated with the curing and application process, odors that may be highly offensive or toxic. Do you have residents that might suffer from these smells? Ask your contractor about access to the house, especially if the decks they will be working on are entryways into the house. Urethane deck coatings especially are notorious for strong odors associated with the curing process. It's better to find out ahead of time that a product may be smelly so that

you can provide notice to residents.

A question you want answered from each bidder is whether your maintenance staff can provide future maintenance to the deck or if the deck installer must provide those services. Some manufacturer's warranties might require that only an authorized installer renew the topcoat. Others may not have that requirement. Is your Association set up with onsite maintenance personnel or an outside source that could reapply sealer for the Association?

You should also ask the contractor what would/could happen to their deck coating if the Association didn't maintain it according to schedule. The painted topcoat is usually 8-10 mils thick with two coats applied. All deck coatings topcoat will wear down from foot traffic, sun, rain etc. On some systems, when this happens, it exposes the tender under layer (where the waterproofing materials are usually) to rapid degradation.

Other Items to Consider

While deck coatings are one thing to consider, there are other items to consider that can cost quite a bit of money too. Flashings for instance; generally there are two types of flashing to be found on the deck-L metal flashings that look just like an L and drip

edge flashings. Each plays a key role in waterproofing your decks.



This is an example of a sheet metal door pan. Code requires all terminations and doors be flashed properly.

L metal flashing is found at the wall to deck junction. It is sometimes hard to spot as it may have been painted over. It keeps water out at this very critical area. Drip edge flashing is the second type of flashing usually found on decks. It is found at the outer edge of the deck. A small bend on the bottom lip will kick water away from the deck as it runs off.

You need to know if your flashing is compatible with any new coatings you are considering. It may not be due to its being rusted, improperly installed or that it simply does not meet the manufacturer's specifications to apply waterproof coatings too.



Rusted metal is revealed after old coating was removed. This scupper must be replaced to properly waterproof the deck.

Removal of L metal flashing can often be expensive, involving removal of stucco or wood siding to access it. Repairs by other trades may be required to your siding. Drip edge flashing is usually not as expensive to remove and replace as it is usually pretty accessible, however, working around railings, posts etc. can push the cost up if access is difficult. Are costs of replacement included in your bid? Beware of bids that don't include these items or assure you that the flashings meet specifications for the coating you are applying. Beware the contractor who, after entering into an agreement with you, may then tell you that they "need a change order as your flashings don't meet specification." This is a typical "gotcha" where they can add high profits onto the bid when you're stuck having to make emergency decisions. Again, ask the manufacturer's representative to address this in their scope of work.

Door thresholds, entry door and screen door clearances are another item to think about. You may need to budget for shaving doors down or raising threshold heights when applying a new coating over an old coating. Replacement or repair of substrate under the deck coatings is another item that can quickly add up, often exceeding the cost of the coating work itself. A thorough inspection can usually find any soft spots under the coating that indicate weak rotted plywood/OSB board. A good estimate will include allowances for replacement of plywood, eliminating most surprises.



Dry-rotted substrate needs to be replaced before new decking can be installed.

What no one can predict without destructive testing is to what extent does the damage go? Soft plywood is one thing, rotted framing supporting the deck is entirely another. Remember the Pismo Beach condominiums described above? An \$8,000.00 contract turned into \$100,000 + in repairs to framing and

almost 8 months of time before the owners could use their decks again. Damaged framing must be repaired before putting a new coating on-there's no sense in throwing money away as the new coating will only fail as the deck supports fail too.

Insurance should also be given consideration-some deck coatings, when applied directly over plywood, will carry an ICBO (International Conference of Building Officials) Class A and a One Hour fire rating. Your rates may drop if you apply a coating that meets the rating criteria. Inquire with your deck company as to whether their coating is ICBO rated for Class A Fire resistance and if it is one hour rated. Existing coatings may need to be removed first to achieve this rating. Your insurance agent/underwriter should also be consulted in regards to re-rating the property.

Reserve Fund Considerations

Before you decide on a deck coating, you will want to find out what all your costs of ownership really will be. There is today's cost of purchasing the product and there is tomorrow's cost of future maintenance to think about as well. Selecting a high maintenance deck coating can impact your Associations dues and

reserve needs for years to come.

For example, if a coating required a clean and reseal every 2-3 years to maintain your warranty, how much would that cost each time and multiply that over the expected life span. A low price on installation could easily turn into a high cost maintenance nightmare for the next 30 years.

Ask the contractors bidding on your work to provide you with a "at today's costs, how much would it cost to clean and reseal your coating, based on the square footage we have at our complex?" Compare each different coating's costs to clean and reseal it and multiply that factor out over its expected life. The deck system you select should have a 25-30+ year life expectancy, just like most roof systems. Compare the difference and decide for yourself where you want that money to go-into your reserves for some other component's reserve needs or to your contractor. Your reserve study preparer can be a valuable source of information too and should adjust your Association's reserve study when you put a new system down or reseal your existing system.

Important Considerations When Choosing a Contractor

When it comes to selecting a contractor to install the deck system you've selected, it is critical that you make the right choice. Often times a Board will select what appears to be the least expensive contractor. That could backfire on your Association if that contractor is not properly licensed, insured and bonded and an accident occurred while the contractor's staff is on the job site at your HOA.

Ask your contractor to provide you with this information and check it! Call their Insurance Company as listed on the form they have provided. Look up on the web site of your states contractor licensing web site for their license status, type and class. Often bonding and workers compensation information can be found there as well. Stipulate that they name the Association and your management firm as an additional insured on their liability insurance. Note, if they can't name you as an additional insured, their insurance carrier may not insure them when working on condominiums-ask for a copy of their insurance policy's exclusions clause. While you can't be named as an additional insured on workers

compensation, you can be named as a party in interest and be informed if any changes occur to their workers comp policy. Consult your risk manager for further information on protecting your Association against possible claims.

Whatever you do, don't let any contractor onto the Associations property to work until you have all their information in place! You potentially risk your member's financial future if you don't.

References

Your contractor should be willing to provide references for work similar to yours that they have completed recently. You should also ask if you could visit the jobs that are on the reference list. Talk to the manager, the residents or the general contractor who ran the job about the firm you are considering using.

You should also ask to look at jobs that are several or more years old. This will let you see how well the coatings they applied have held up. Ask the manufacturer's sales representative about the firm you are considering and what their experience has been with the contractor.

Summary

Once you as a manager or Board member know what to look for, you needn't fear the worst when it comes to your decks. Proactive is the key word, performing the necessary maintenance before the deck becomes a problem.

Just like the rest of the Associations maintenance needs, incorporating the decks into a regular maintenance schedule will save a lot of heartache, time and money.

Thanks to Dave DiBaggio of Master Seal for his assistance with this article.

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Bill is the President of Waterproofdeckcoatingadvice.com, providing consulting and inspection services to HOA's.

Please feel free to contact us to inquire as to how we can help you take control of your deck with our sophisticated inspections. 805-801-2380

We also provide bid consulting/analysis services, seminars for firms in the HOA business and telephone consultations

See us on the web at waterproofdeckcoatingadvice.com