Dramatically Increase Installation Profits & Quality

BY PROPER OUTDOOR ADHESIVE SELECTION

There is a vast difference between installing indoors under controlled conditions and outdoors under variable weather conditions. Because "installation time is money", installers, contractors and others quickly learn that there is much more to selecting an outdoor adhesive than just its low price and/or high strength. In fact, using an adhesive based on those criteria alone will probably be both costly and disastrous.

Many either do not know or ignore the fact that outdoor installations under widely variable and sometimes adverse weather conditions, plus long term weathering, are a "different world". Furthermore, from an economic standpoint, installers cannot wait for good weather before they can use a "fair weather only" adhesive. Delays due to weather could be hours and/or days and/or weeks.

An important factor that is not considered when selecting an outdoor adhesive is what its strength and durability will be after weathering and not its initial strength. Some adhesives start off with high strength, and then deteriorate from both weathering and/or aging. Hence, to avoid adhesive "time bombs," long term weathering tests under different world-wide outdoor conditions are important.

Probably the most important installation property not realized by outdoor adhesive amateurs is the adhesive's "green strength"* (grab, tackiness, grip, etc.) before cure.

Installing with high green strength adhesives results in faster, more profitable and higher quality installations. Using oily/slippery adhesives (no green strength) is the opposite.

***Green Strength** *(Grab/Tack as Opposed to Oily/Slippery) is the property that gives an adhesive the ability to hold two surfaces together when first contacted and before (still green) the adhesive develops its ultimate bonding properties when fully cured. High green strength adhesives are vital for outdoor installations because they help overcome the tendency of surfaces like synthetic turf to separate, curl, bubble, lift, creep, slip and wrinkle during installation without resorting to excessive rolling and/or "sand bagging". Furthermore, a high green strength adhesive must be practical to handle under widely variable weather conditions, including not only climate, but also hourly changes in weather conditions during the installation. Installers can't wait for ideal weather but instead need an adhesive that can be used when it is hot, cold, damp, dry, windy, high humidity, low humidity, etc. An adhesive's high green strength (grab) when installing and before it cures, and not high strength after cure, is essential in order to overcome the previously mentioned troublesome forces of "wind lift"; edge curl; creep; wrinkling; buoyancy from unexpected rain; expansion and/or contraction due to surface temperature changes from sunlight; shadows; passing clouds; etc.*

Many good high strength adhesives after cure (like epoxies, high isocyanate content urethanes, silicone/silanes) are "oily", slippery and have little or no green strength, grab or gripping properties until after they are cured. Hence, because of little or no green strength, costly outdoor installation problems and delays can result by using these otherwise good adhesives. During installation the turf can expand, contract or otherwise move due to the surface temperature changes from passing clouds on sunny days; to wind lifting the turf like a sail; to seams creeping open before the adhesive sets; to turf shrinking from cooling due to unexpected rain on a hot day; etc. Remember, for good, faster and more profitable installations it's the adhesive's high green strength before cure (and not the adhesive's properties after cure) that counts.

In summary, three extremely important adhesive properties for a successful and profitable outdoor installation are: the adhesive **handling properties** in variable and sometime adverse weather, its **high green strength (grab)** during installation and its **durability** after outdoor weathering.

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