VANDERVART
Concrete Products

Proper Care for Your Concrete as supplied by VanDerVart Concrete Products

Curing concrete is a key to proper strength gain and concrete durability

Curing concrete is ensuring that concrete has the proper moisture content and the proper temperature to chemically react to bring the concrete to its full strength potential. Curing concrete is a very important part of the procedures performed by a professional concrete contractor to provide a durable concrete surface. There are several acceptable methods of curing concrete. The most common method is the application of a liquid curing compound sprayed on to the surface of the concrete immediately after finishing, which prevents the concrete from drying prematurely. Water curing, moisture retaining covers and Cure and Seal products are also acceptable curing methods. Proper curing is also very important during cold weather concrete conditions. Cold weather concrete curing may include covering the concrete with insulating blankets or building a temporary structure around the area prior to concrete placement. The ultimate concrete strength and surface durability is greatly impacted by proper curing immediately after concrete placement – no matter the time of year.

After curing the concrete - Use a high quality concrete sealer

Proper sealing of an exterior concrete surface prior to Wisconsin's winter season will help to provide years of problem free and durable concrete. Water and chemical repellent concrete sealers help to prevent surface defects by reducing moisture and detrimental chemicals from penetrating the concrete. After the proper curing process, the concrete should be sealed by applying a concrete sealer. The concrete sealer must be compatible with the curing product or process used to cure the concrete. If a water base curing compound was used to cure the concrete, then a water base sealer should be used to seal the concrete. Alternatively, if a solvent base curing compound was used to cure the concrete, a solvent base sealer should be applied to the concrete. When a solvent base sealer is to be applied to concrete, it is extremely important that the concrete is completely dry. Do not apply a solvent base product over a water base product or vice versa. Always follow the manufactures recommendations for application methods and product coverage.

Concrete is not waterproof. Hardened concrete contains many pours that naturally occur during the hydration and curing process. The intent of sealing concrete is to fill the pores in the concrete and cover the surface to protect the concrete. If water or moisture is present in the concrete when the sealer is applied, the sealer cannot fill the pours and the sealer will not properly bond to the concrete. In most cases, the concrete may be sealed approximately 24 hours after pressure washing however; temperature, humidity and dew point all enter into the timing and proper application of the concrete sealer. Do not apply a sealer product that claims to seal wood, plastic, concrete and masonry surfaces. A proper high quality sealer is specifically designed for concrete and masonry products. Both silane and siloxane are very good sealers for concrete and masonry.

Many concrete contractors use a "Cure and Seal" product. The proper application procedure for this product is to consistently apply it to the concrete surface as soon as the concrete has hardened at its initial set. Approximately 30 days later, the concrete should be power washed with clean water and left to completely dry. A second application of the Cure and Seal product is then consistently applied to the concrete surface. The first application cures the concrete and the second application seals the concrete. Cure and Seal products are available in both water base and solvent base liquids. Generally, a solvent base product will be more durable than a water base product. Water base products are often used for interior concrete because of the low odor as compared to a solvent base product.

Application of the Concrete Sealer

Water base sealers or water base Cure and Seal products are generally more forgiving during the application process. A water base product allows application to the concrete with relatively higher air humidity levels. Solvent base sealers require a more stringent set of standards for proper application. The desired temperature for both the air and the concrete temperature is between 55 degrees and 75 degrees Fahrenheit. The desired air humidity should be lower than 55 percent for application of solvent base sealer products. The desired dew point should be 50 or lower for proper application of solvent base sealers. The application conditions are more stringent for solvent base products, but the durability of solvent base sealers is generally worth the extra application necessities.

Avoid Using Deicers

While concrete is the most durable product available for your home, proper care is a requirement for long-lasting beauty and durability. Concrete takes time to reach its full strength and provide surface durability. One of the most damaging things to an exterior concrete surface is the use of chemical deicers - especially during the first winter. While some deicers, such as salt, do not chemically react with the concrete, they do increase the number of freeze/thaw cycles that the concrete goes through. Exterior concrete can be designed to withstand repetitive freeze /thaw cycles, but excessive cycles has the potential of damaging the concrete. Be cautious of products that claim to "be safe for use on concrete" as many may cause damage to the concrete and/or the concrete reinforcement.
Never use deicers containing ammonium sulphate or ammonium nitrate. These chemicals are often packaged and sold as deicers, but they will rapidly disintegrate concrete.
Some common garden fertilizers contain these two chemicals or urea, which may cause disintegration as well. If the concrete surface does come in contact with deicing chemicals, remove or wash off the product as soon as possible. A vehicle operating on public streets in Wisconsin during the winter season will pick up road salt and deicing chemicals. Those chemicals drip from vehicles onto the concrete and should be removed from the concrete as quickly as possible. Properly sealing concrete will help prevent these chemicals from penetrating the concrete.

A safe material to use to make the concrete surface skid resistant is plain sand. This can be purchased from all VanDerVart Concrete Products locations. We have sand stored inside during the winter season so that we can provide warm sand to our customers at all times.

The above information is personal opinion based on experience. The concrete industry includes many professionals with life long experience. Supporting data and additional information is available upon request. Please contact us with any questions on concrete or concrete products. Our desire is our customer's complete satisfaction with our product.
A properly placed and properly maintained concrete will provide many years of durable use with an attractive appearance.

Sincerely,
VanDerVart Concrete Products