

## A Helpful Tip from



### Caring for Your Concrete Structures

While concrete is the most durable construction products available for your home, proper care is a requirement for long-lasting beauty and wear.

#### Care and Maintenance

Although concrete is an extremely durable product, the following care and maintenance guidelines will add to the value of your investment:

- ❑ Do not apply deicing chemicals for snow and ice removal during winter. To provide traction if needed, sand is recommended.
- ❑ Never apply deicers containing ammonium sulfate or ammonium nitrate. These products may be

packaged and sold as deicers, but aggressively attack and deteriorate concrete surfaces. Salt eats ALL types of masonry installations including concrete.

- ❑ For stain removal, do not use harsh acids. Use a product specifically designed for the stain in question and for use on concrete.

Concrete is an extremely strong, durable material made from cement and aggregate. Concrete is porous, whether used as a floor in garage, porch or patio, driveway or walks.



Often porch or patio floors will have an extra smooth surface, but it will still absorb stains easily. It may be sealed. Concrete floors are sealed to prevent staining, since without sealing they absorb stains readily. The floor must cure and dry after it is laid before it can be sealed, with the time required varying with weather, temperature, building conditions, etc. Floors must be clean, and any remaining alkali in the concrete must be neutralized before sealing.

Cleaning and sealing stamped and colored concrete should be done on a regular basis just like any other home maintenance. The frequency will depend on how high a traffic area to cars, foot traffic, water, and any chemicals the concrete is exposed to. We recommend resealing every 2 or 3 years. If you wait longer, you

may notice the color fade slightly. But just like waxing a car, reseal your stamped concrete and the color will be as vibrant as the day it was installed. If color fades, there are ways to renew it, but keeping it sealed is your best defense.

## Overview

Concrete is one of the strongest building materials available. Stamped decorative concrete combines the strength of concrete with color and design to produce a beautiful surface. Proper installation will ensure that the concrete will remain structurally sound for decades. Proper maintenance will ensure that the concrete surface remains beautiful for decades.



## Proper Installation

Concrete should always be installed over a strong base. AEY installs concrete over at least 4 inches of compacted process gravel. The installations are typically reinforced with re-bar or micro fiber mesh. A cure and seal product is used when temperatures are going to maintain above 50 degrees for at least 30 days, which will help the concrete cure slower, thus reducing the amount of possible shrinkage cracks.

## Water

Unsealed concrete will absorb water. Water + Traffic + Time = Wear. As the top surface wears, the aggregates (stones inside of the concrete) begin to expose. This effect is most commonly seen on concrete city sidewalks and roads. Sealing the surface is a simple and inexpensive process that will solve this problem. Once the surface is sealed, it must remain sealed. Driveways, carports, and high traffic walkways should be sealed every year. These surfaces are used 12 months out of the year and are subjected to plows and/or shovels and/or snow blowers. Sand is used to gain traction on the decorative surface. Rock salt and dry ice should not be used to melt snow or ice. These melting materials will accelerate the wear on the sealer and can potentially damage the concrete surface. Rear patios, pool decks, and rear walkways are surfaces that are generally not used in the wintertime. Therefore, they only receive 5 to 7 months of abuse. These can be sealed every 2-5 years. AEY recommends that all surfaces be sealed yearly.

## **Petro-chemicals**

Oils, grease, WD40, and other petroleum based chemicals will affect the surface of concrete. It will penetrate the sealer and stain the concrete if allowed to stand on the surface for a long period of time (2+ hours). If a petro-chemical is spilled on the surface, wipe it clean and the surface will be fine.

## **UV Light**

UV Light affects the pigments within the concrete. Colors will fade if the surface is not sealed and is exposed to the sun. Maintaining a sealed surface will preserve your color.



## **Thinners**

Chemicals such as xylene, lacquer thinner, and paint thinner are detrimental to the sealer. These chemicals will absorb into the sealer very quickly and may alter the appearance of the decorative concrete. If a thinner is spilled, do not wipe it off, allow the thinner to evaporate off the surface.

## **Freeze/Thaw**

Exterior concrete is subject to freeze/thaw cycles. Expansion joints are cuts that are made to allow for the expansion and contraction of the concrete slab. The 4 inches of process gravel is responsible for reducing the pressure of frost heaves. Cracks may appear over time if pressure on the concrete slab is not diverted into the expansion cuts. Cracks can appear for no reason at all. Even if all steps in a proper installation are followed, cracks may still appear. The solution is to fill the crack and hide it by using color. That area of the installation should then be monitored yearly. Cracks are never repaired, they can only be filled. Once filled, a crack can resurface over time. The time frame can be from 1 year to 10 years. It is dependent on the Earth's movements.

## **Maintenance Program Summary:**

Keep decorative concrete surfaces sealed; use sand for traction on icy surface (no salt); keep the plow or snow blower at least 1/2 inch above the surface; clean off petro-chemicals immediately; Allow thinners to stand - do not wipe off - allow thinner to evaporate; if proper expansion joints are installed, cracks may still occur.

