

CreteDefender EasyClean™ Tech Data Sheet

Product Description:

Chemicals at both ends of the pH scale cause rapid deterioration of concrete. Acids like hydrochloric, sulfuric and even citric acid, and alkalis such as potassium hydroxide severely shorten the useful life of portland-cement based products, masonry, and many other substrates. Staining from food products like fruit juices and hot sauce, motor oils and other petroleum products, and other harsh chemicals also detract from the usefulness of concrete.

CreteDefender EasyClean™ is a novel hyperfunctional poly-siloxane super hydrophobic penetrating sealer that reacts with concrete or any other metal oxide/silicate-based surfaces to transform ordinary concrete into a durable surface with superior stain and chemical resistance over typical penetrating sealer technology.

EasyClean creates a barrier to provide industry-leading stain resistance, while protecting concrete and other surfaces from acids, alkalis, and solvents. And in doing so, it protects from other sources of deterioration such as water, salts/chlorides (including salts from ocean and sea air), acid rain, sulfates, and freeze/thaw cycles. It eliminates the mass loss, spalling, and cracking associated with these attacks.

CreteDefender EasyClean is not a coating or membrane, but its cross-linking bonding creates a nearly impervious protection in the top layer of the substrate, creating high hydrophobicity and preventing damaging chemicals from penetrating.

Advantages over Existing Products:

Polyurethanes, polyureas, and novolac epoxies are the primary methods currently used to protect against harsh chemicals. But they are expensive and require special application. For example, novolac epoxies require mixing two

Product Data

Hydrophobic, Hyperfunctional, 1K Cross-Linking
 Package Sizes: 5 gallon Pails; 55 gallon Drums
 Weight: Pail - 47 lbs./21.3 kg
 Specific Gravity: 0.997 @ 25°C
 Density: 0.885 g/cm³ (20°C)
 Freezing Point: N/A
 PH: N/A
 Protect from Freezing: No
 Appearance: Clear to Light yellow, translucent liquid
 Odor: Acetate camphor- or blueberry-like smell
 Total solids: 15 - 20%
 Water Solubility: Insoluble
 VOC's*: 36 g/L (ASTM-D2369)
 Flash Point: 4°C
 DOT Hazard Class: Class 3, Flammable liquid
 Hazards: See SDS

Mixing: **DO NOT MIX OR DILUTE**
 Coverage: 300-500ft²/gallon
 Touch dry: 1 hr at Room Temperature (RT), 50% Relative Humidity (RH)
 Hard dry: 4 hrs at RT, 50% RH, Suitable for light traffic
 Time to in-service – 24 hrs at RT, 50% RH
 Maximum performance may take up to 14 days to develop due to environmental humidity and temperature conditions.

Shelf Life: Up to 12 months in original, unopened, properly stored containers. Dependent on exposure to air, so keep sealed until use.

*Exempt solvents are used in the production of this product per EPA CFR 51.100.

different components in order to be effective and need a primer before application, increasing the application and product expense. Note that not all epoxies are formulated to protect from harsh chemicals, and the product costs increase as their protection capabilities increase.

Silane/siloxanes, silicone polymers, and acrylics are the primary products currently used to protect from staining. While some silicones perform well, as do some acrylic products when multiple coats are applied, EasyClean provides superior stain resistance and ease of cleanup of staining substances compared to products currently available for stain prevention. Many of these products are prone to hot-tire pickup.

Products marketed as “guards” for polished concrete can provide some resistance to stains and acids. But, that protection is typically much less than

CreteDefender EasyClean, with guards providing limited stain resistance and poor acid resistance. Plus, many of these also require a two-step application process.

Key Features & Benefits:

- Allows for easy stain removal
- Resists acid and alkali damage
- Saves money by dramatically reducing costs of maintenance and repair
- Is quick and easy to apply
- Is not affected by UV exposure
- Retains repellency after multiple pressure washings
- Greatly eases snow and ice removal
- Significantly more breathable than film-forming epoxies or acrylics – will not “lift” or “blister”
- No hot-tire pickup

Recommended Uses:

Use CreteDefender EasyClean where you want to:

- Keep concrete clean from all types of common stains
- Minimize damage and maintain substrate integrity when exposed to acids
- Minimize damage from alkalis and solvents
- Prevent freeze/thaw damage
- Prevent salt damage by repelling water and the chemicals carried by water, including salts, from the concrete surface

CreteDefender EasyClean can be used anywhere you want to protect various types of hard surfaces from staining. It is effective on:

- Concrete: High and low quality, exterior and interior, broom finished and machine troweled, slab, pre-cast, structural, horizontal or vertical, old or new
- Concrete pavers, mortar, and other hard cementitious products
- Masonry / Brick
- Cultured Stone
- Clay tiles

You may find EasyClean opportunities in:

- Gas stations and convenience stores
- Fork lift storage areas, where battery leaks are a problem
- Manufacturing lines, where chemicals leak from the machinery
- Food processing, where acids from food products spill onto the floor and daily cleaning with harsh detergents and hot water damages the concrete
- Chemical processing plants
- Textile factories
- Petroleum refineries
- Waste treatment facilities
- Vehicle fleet management facilities
- Grain storage
- Graffiti-prone areas

Coverage:

300-500ft²/gallon (based on typical concrete absorbency). The amount needed may vary by surface roughness and porosity. It may also vary with ambient air humidity.

Application:

Preparation

Surfaces should be free of standing water, surface dirt, dust, oils, and other contaminants, including sealers and coatings.

Step 1. Prepare the substrate – if necessary

Prepare the concrete substrate by thoroughly degreasing (if necessary) and acid etching. Rinse surface thoroughly. Remove all residues caused from etching and allow surface to dry thoroughly before application.

Step 2. Application

Only one application is needed for basic protection against automotive fluids, water, and short-term acid exposure. Apply EasyClean directly to the concrete surface with a solvent resistant pump sprayer. Apply a thin film of sealer ensuring the entire surface is covered / wet evenly. **Do not over apply.** You are not applying a membrane or coating. No burnishing or buffing is recommended. On vertical applications, material should be applied from the bottom up to ensure even application.

For EasyClean protection against acids, a second application may be made after the first application has absorbed, but not dried (typically after 10 minutes and before 1 hour has passed).

Preferred environmental conditions are 40-60%RH / 50-90°F, with humidity driving the cure of the sealer. Relative humidity should be at least 30%.

CreteDefender EasyClean should not be applied to damp surfaces (surfaces should feel dry and not wet to the touch). If there has been recent rain or power washing, allow at least 24 hours before application, especially on porous pavers where the residual moisture tends to wick up the edges and slowly evaporates. If applied over wet or concrete, protection will be good, but the product may turn hazy or white instead of remaining clear.

A test application is recommended on each surface to be treated to ensure compatibility.

CreteDefender EasyClean is shipped in ready-to-use form. DO NOT DILUTE.

CreteDefender EasyClean should not be applied if rain is expected within 4 hours of application.

Maintenance:

Remove all spills and contaminants within typical work day, 8hrs. If any chemical spills occur before full cure is achieved, wipe the surface immediately.

Do not sand or burnish the substrate after EasyClean is applied, to avoid premature wear.

Handling and Storage:

Due to moisture sensitivity, material should be used promptly after container is opened. Exposure to air or water before use as a treatment may cause the material to cure in the container.

Health and Safety:

Wear appropriate protective clothing for eyes, face, and hands when using EasyClean. Do not breathe in vapor/spray. If EasyClean comes in contact with skin, immerse in cool water or wrap in wet bandages. If skin irritation occurs, seek immediate medical attention. If in eyes, rinse cautiously with water for several minutes. If ingested, immediately call POISON CONTROL or a doctor/physician and drink water continuously with activated carbon if available. If inhaled, remove victim to fresh air and keep at rest position comfortable for breathing.

Limitations

EasyClean is a one-coat system with poor re-coatability.

Coatings or paints cannot be applied over surfaces treated with CreteDefender EasyClean. Keep in mind when planning striping, lane marking or other painted effects after application.

Concrete surface must be clean and organic (oil) free. On concrete os surfaces that are more than 4 months old, acid wash and allow to dry thoroughly for best results.