

PURE GUARD

TECHNICAL DATA SHEET

A-PURE

A photocatalytic self-cleaning protectant for hard exterior surfaces.

PRODUCT DESCRIPTION

Pure Guard is a water-borne photocatalytic self-cleaning treatment intended for protective use on hard surfaces. Pure Guard is nano-formulated to absorb surrounding UV light to create a chemical reaction that works to break down organic growth and soiling on horizontal and vertical exterior surfaces.

Pure Guard decomposes VOC's and nitrogen oxides (NOx) associated with car exhaust fumes. As a result, the surrounding air quality of a Pure Guard-treated surface is improved. In terms of NOx pollutants, every 250 sq ft of a Pure Guard-treated wall has the same cleaning power as 1 adult tree.

Pure Guard works best when applied over either Armus Hydro Guard or Repair Guard.

ADVANTAGES

- Self-cleaning protection against bio-growth
- No significant loss of "breathability"
- Excellent retention of surface appearance
- Improvement of air quality
- Cost-effective and easy to apply

COMPATIBLE SUBSTRATES

- Concrete
- Cement Stucco
- Brick/Terra Cotta
- Limestone/Marble
- Granite
- Stone

USES

- Building façades
- Exterior walkways & hardscapes
- Roofing
- Balconies

PRODUCT INFORMATION

Available Packaging

1 gal. unit container

Storage Conditions

Store dry at 40-95 °F (4-35 °C)
Store in a cool, well-ventilated area.
Keep container tightly closed.
Store in a secure location.

TECHNICAL INFORMATION

Type	Liquid dispersion
Color	Milky white, dries clear
Odor	Slight rubbing alcohol odor
pH	9.2 ± 0.5
VOC Content	136 g/liter
Density	0.98 ± 0.05 g/cm ³
Melting Point / Freezing Point	Not available
Boiling Point	> 179°F (82°C)
Flash Point	> 75.2°F (24°C)
Flammability	Not available
Solubility	Fully miscible with water
Auto-ignition temperature	> 750.2°F (399°C)
Viscosity	2.8 ± 0.5 cP @ 68°F (20°C)

SCIENTIFIC TESTING

ISO EN 27447 Anti-bacterial action	Effectiveness of deactivation of three strains of bacterial microorganisms on treated ceramic tiles (5 x 5 cm), four hours of light exposure (360-420 nm), 55.6 µW/sq cm: Escherichia coli (ATCC 51813), 98.9 %; Listeria monocytogenes (ATCC 19115), 99.9 %; and Staphylococcus aureus (ATCC 6538), 99.7 %.
ISO EN 27447 Anti-fungal action	Effectiveness of deactivation of a combination of fungal microorganisms on treated ceramic tiles (5 x 5 cm), four hours of light exposure (360-420 nm), 55.6 µW/sq cm: Aspergillus & Penicillium spores, 87.3 %.
ISO 22197-1 Removal of nitrogen oxides	Photocatalytic breakdown of NOx in continuous gas flow testing on treated cement-based tiles, 40 minutes of UV-A exposure (350 nm), 10 W/sq m: minimum 36 %.

APPLICATION INFORMATION

Coverage	~325-400 ft ² /gallon (8-10m ² /liter, no dilution)
Air/Substrate Application Temperature	41-95°F (5-35°C)
Application Conditions	Surface and air temperatures must be at least 41°F (5°C) during application and for 8 hours following and should not exceed 95°F (35°C). Do not apply by sprayer in windy conditions to prevent overspray.

APPLICATION INSTRUCTIONS

EQUIPMENT

The preferred method of application is either HVLP sprayer or low-pressure pump spray. Paint brushes and rollers may be used for small-scale applications. Foam or synthetic brushes and rollers can be used with Pure Guard.

RECOMMENDED SYSTEM

Depending on project needs, Armus recommends using Pure Guard over Armus Hydro Guard or Repair Guard.

NOTE: ON NEW BUILDING SURFACES AND INSTALLED REPAIR MATERIALS, ENSURE SUBSTRATE IS FULLY CURED PRIOR TO APPLICATION.

SURFACE PREPARATION

1. Wear protective gloves & gear before applying.
2. Protect vehicles, and surrounding surfaces not set for treatment.
3. All surfaces should be clean and free from dust, oil, grease, and other foreign matter, including paint/coating residues.
4. Thoroughly clean surface using appropriate product and methods.
5. Ensure surface is completely dry prior to application.

NOTE: DO NOT DILUTE PRODUCT. SHAKE CONTAINER WELL BEFORE USE. LOAD PUMP SPRAYER OR PAINT TRAY IMMEDIATELY AFTER MIXING.

VERTICAL APPLICATION

SPRAYER:

1. Saturate from bottom up.
2. Apply enough for a 4–8-inch rundown below the spray contact point.
3. Let first application penetrate for 5-10 min before second application (if applicable).
4. NOTE: When spraying fluted architectural block, spray in an overlapping X-pattern. Wipe up any excess material using microfiber cloths.
5. Allow surface to dry.

BRUSH / ROLLER:

Only for small-scale applications.

1. Apply uniformly and saturate the surface.
2. Let product penetrate for 5-10 min.
3. Brush out heavy runs and drips that do not penetrate.
4. Allow surface to dry.

HORIZONTAL APPLICATION

1. Apply in a single-saturating layer. Do not over-apply.
2. Back roll any puddles thoroughly until they penetrate the surface.
3. Wipe up any excess material with a microfiber cloth.
4. Allow surface to dry.

SAFETY INFORMATION

Always read the product SDS for safety instructions and precautions before use. Use appropriate safety equipment and job-site controls during handling, application, and storage.

For further information regarding transportation, handling, storage and disposal of products, users should refer to the SDS.

LIMITATIONS

- Minimum ambient and substrate temperature during application is 41°F (5°C); maximum is 95°F (35°C).
- Substrate must be dry prior to application.
- Always test on all substrates to ensure desired results.
- Do not apply at temperatures higher than 95°F (35°C). Higher temperatures cause evaporation, which may result in an uneven appearance.
- Do not apply Pure Guard to damp or frosted surfaces.
- Do not apply if rain is imminent within 8 hours of application.
- The product is not suitable for surfaces to receive paints or coatings. Always test for compatibility.
- Not recommended for below-grade application.

WARRANTY

The information and recommendations provided are based on thorough research conducted by ourselves and others, and we believe them to be accurate. However, we do not guarantee complete accuracy because it is impossible to cover every potential application of our products or anticipate all variations that may occur in substrates, surfaces, job conditions, and application methods. It is the responsibility of purchasers to conduct their own tests to determine the suitability of our products for their specific purposes.

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