MICROGUARD1
HARD SURFACE FINISH

Technical Data Sheet TS-20

MG1-1500 Hard Surface Coating

TYPE	FILM THICKNESS	APPLICATION METHOD	THINNER	CLEAN UP	DRY TIME		
					TACK	LIGHT USE	FULL CURE
Clear, Inorganic, Reacted Siloxane	**Wet** 25.4 - 38.1 microns (1 – 1.5 mils) **Dry** 14 - 18 microns	Microfiber Pad, Unger Pad, or 3/8"-nap Microfiber Roller (roller for concretes, anti-skid and matte additive applications)	None	MicroKleen™ AD1-919	1 – 1 ½ Hours (average)	3 Hours (Light use)	5 Days (75° F, 50% RH)

DESCRIPTION: MicroGuard1® 1500 (MG1-1500) is a clear, reactive siloxane finish that provides exceptional abrasion, and chemical resistance properties when applied onto ceramic or porcelain hard tile & grout (vertical & horizontal), epoxy & concrete terrazzo, pavers, bricks, slate, concretes, epoxy, and stone. The non-porous, inorganic coating will not support the growth of microbes or fungi.

SAFETY PRECAUTIONS:

- Use nitrile gloves and safety goggles when working with product
- During application, wear OSHA approved respirator fitted with organic vapor cartridges (3M model #60926 or equivalent)

SURFACE PREPARATION: Surfaces must be clean, dry, and free from dirt, oil, mildew, efflorescence, wax, temporary treatments, or any other surface contaminate that could negatively affect adhesion or curing of the installed film.

1. Remove any wax or temporary treatments using a commercially available stripper.
2. Use MicroKleen™ PLC-1 Industrial Cleaner & Degreaser, per label instructions. Use mechanical agitation (swing machine or Square Scrub) with an aggressive cleaning pad. Then, remove residue with extraction equipment. Repeat as necessary, until surface is cleaned. Check the surface pH to establish a 6 to 8 range before product installation.
3. If necessary, neutralize the tile & grout floor surfaces with MicroKleen™ PLC-AN Acid Cleaner / Neutralizer, per label instructions. Pick up acid residues thoroughly with extraction equipment. Check surface pH again.

NOTE: Allow surface to dry before product application. Grout may be porous and can hold water for extended periods. Use fans and dehumidifiers to help with drying. Use a moisture meter to ensure grout and surface moisture content is 40% or less.

SEALING SUBSTRATES PRIOR TO APPLICATION OF COATING: Sealing will vary according to the type and location of the substrates to be coated.

Sealing Sanded or Porous Grout – Acrylic color seal (Grout Perfect® ColorSeal) can be utilized to renew and seal porous grout prior to MicroGuard1® installations. This will give the best protection against grout staining and discoloration. Allow the acrylic ColorSeal to dry 2-4 hours before the MicroGuard1® installation.

Sealing Indoor Concrete for a Topical Look – If a topical gloss look is desired, the surface is absorbent, and a vapor barrier is present, use a sealer such as Sherwin Williams Loxon Acrylic Conditioner, H&C Concrete Sealer, an epoxy paint such as S/W Macropoxy 464, or high-solids epoxy. If a grind & seal or polished concrete look is desired, use Armidex* by Allsource.

Sealing Outdoor Concrete for a Topical Look– Note: Clear sealers should NOT be used with MG1-1500 coating unless there is a vapor barrier present. Water vapor coming up through the substrate can cause the clear sealer and MicroGuard1® coating to haze or turn white. Use Armidex* by Allsource as the moisture barrier as needed, and for very absorbent substrates. Pigmented concrete paints, and epoxy paints can be used as a sealer if a topical gloss finish with the MicroGuard1® is desired.

NOTE: Walkway and driveway bricks or pavers should not have a sealer applied prior to the MicroGuard1® coating. However, on very absorbent substrates the use of Armidex* by Allsource is recommended to block the porosity.

APPLICATION: GENTLY SHAKE CONTAINER FOR 15 SECONDS BEFORE INITIAL USE, AND BEFORE EVERY USE. Mask off all adjacent surfaces not to receive coating. Slip on linen booties before stepping onto the previously cleaned surface. For smooth surfaces, run a micro-fiber mop wetted with MicroKleen™ AD1-919 over the surface before product installation.

Paint Pan & Back-Padding (hard surfaces) – Pour the agitated MG1-1500 into a metal or HDPE paint pan. With a pre-wetted Microfiber or Unger (MD40Y) pad, apply the product evenly to the surface in an "S" motion. **Ensure the mop head is loaded with enough coating to glide**. Pull the last strokes towards you until it leaves an even film thickness. Never push the coating forward because it will leave a wave of coating at the far end which could eventually flake off. Use the edge of the pad to dab any grout that is not uniformly coated and back pull again. Check for any skips or holidays often and touch up while you can still reach those affected areas. Use microfiber cloth or staining sponge for cut in and hand applications.

Spraying & Back-Padding or Back-Rolling (indoor cementitious surfaces) – Pour agitated MG1-1500 into pump-up sprayer reservoir. Spray to get the coating onto the floor surface, and then back- roll using a 3/8" nap microfiber roller (without stripes), or back-pad using a microfiber pad or Unger pad. Surface texture will dictate which method to use.

Spraying & Back-Rolling (outdoor cementitious surfaces) - Pour agitated MG1-1500 into pump-up sprayer reservoir. Spray in a left-to-right motion, but no further than you can reach with a roller. Make sure all coating is absorbed into the concrete/masonry surface. This occurs when the concrete "wets" out. Back roll with the DRY 3/8" nap microfiber roller (without stripes) to remove any excess product.

Paint Pan & Back-Rolling (Anti-skid or Matte mixture on hard surfaces / sealed cementitious surfaces) – Pour properly mixed and agitated MG1-1500 with Anti-skid or Matte Additive into a metal or HDPE paint pan. Saturate a 3/8" microfiber roller (without stripes), remove excess, and roll out onto the surface to achieve a thin, even coat. Dampen the roller with more product when necessary. The final strokes with the roller should be back-rolled towards the person applying.

NOTE: Always use metal or HDPE "solvent resistant" paint pans. Do not use regular plastic paint pans or foam brushes.

PRODUCT YIELD: MicroGuard1® 1500 (MG1-1500) yields approximately 750+ ft^2 per gallon, or approximately 300 ft^2 for porous surfaces such as pavers and concrete, depending on application method, surface texture, and porosity. Actual field conditions and application methods will dictate the final product yield.

CURING INFORMATION:

- MicroGuard1® 1500 (MG1-1500) dries to the touch in about 1½ hours, but a full cure is not realized for 5 days. Floors can generally be opened for light use after 3 hours.

NOTE: MicroGuard® MG1-1500 does not cure when air, material, or surface temperatures are below 60° F. Do not apply when air or surface temperatures are below, or will be below, 60° F throughout the curing cycle. Do not apply when air or surface temperatures are above 95° F, or if ambient relative humidity is above 85%.

CLEAN UP:

- Application tools and spray equipment should be cleaned using MicroKleen™ AD1-919 Spray & Equipment Cleaner.
- Clean up drips, spills and over spray by saturating a cloth with MicroKleen™ AD1-919 and wiping the affected area before the coating dries to touch.
- Dispose of alcohol saturated cloths in a safe manner.

NOTE: Use caution not to get any alcohol overspray on the newly applied coating. It will cause the coating to separate and fisheye.

POST-INSTALLATION CLEANING & MAINTENANCE:

- Clean coated surface with water **ONLY** for the first 5 days after application.
- For most general, post-installation cleaning and maintenance situations, and to ensure the best cleaning results without damaging the MicroGuard1® 1500 (MG1-1500) film, use a neutral pH cleaner (ranging from 6 to 8 on the pH scale).
- For best results, Adsil strongly recommends using the OmniFlex (Kaivac) Dispense-and-Vac System for maintaining the floor surface.
- Prolonged use of the mop & bucket technique for cleaning will leave the floors dull and dirty looking (especially in the grout joints).

NOTE: Do not use harsh or abrasive alkaline cleaners (must be pH neutral) for post-installation maintenance.

RECOAT: MG1-1500 can overcoat MG1-1500, AD1000 or AD2000-QD.

- When/if a recoat becomes necessary, dull the gloss of the first installed coat by hand sanding or by mechanical agitation using a fine grit sanding screen, nylon grit brush, or abrasive pad. Wet sanding minimizes dust generation.
- Remove sanding dust before product installation. Pick up residue with rinse and vacuum extraction equipment.

If the recoat 'pulls away' from the first coat, stop immediately, wipe up the fresh coating with MicroKleen™ AD1-919 and continue sanding until the gloss is fully removed.

STRIPPING: When/if it becomes necessary to strip the coating from the floor, follow the steps below.

CAUTION: MicroKleen® Siloxane Stripper PLC-40 is an extremely strong alkaline chemical. Always wear eye protection, rubber boots, rubber gloves and protective clothing when working with this stripper. Read SDS & labeling before use.

1. Sand the existing MicroGuard1® coating as aggressively as possible, but not to the point where you are damaging the substrate by adding scratches or removing the factory finish. Sanding the floor dry will be more aggressive, but it will also generate more airborne dust particles. Dust extraction should be incorporated if possible.
2. Vacuum or extract the sanding dust from the floor surface.
3. Mask off any surfaces that you do not want to get the stripper on.

   NOTE: The stripper can leach under the protective tape and do damage to the underlying surface. The stripper will remove paint, and eat into any objects constructed of aluminum, such as thresholds and tile border strips.
4. Apply by using a short nap roller designed for applying adhesives or epoxy paints. Apply the stripper full strength at 200 and 250 square feet per gallon. The spread rate differential is determined by the surface texture.
5. If separation or fisheyes start to occur, the stripper will need to be rolled out again and again until the separation ceases. Allow the stripper to sit on the floor for 2-3 hours. Do not let it dry on the surface. Apply more stripper if necessary.
6. Use a nylon grit brush or black pad mounted on a swing machine and work the surface area to loosen the coating from the substrate.
7. Using rinse & reclaim equipment, remove stripper off the entire floor area. This may take multiple cleanings.
8. If there is still coating remaining on the floor, repeat the above steps as many times as necessary to get all of the coating removed. Any shiny areas when the floor is dry is an indication that all of the coating has not been removed.
9. Next, apply MicroKleen™ PLC-AN Acid Cleaner / Neutralizer diluted 1 part acid to 8 parts of water. Always add the acid into water and never the water into the acid. **Wear protective eyewear, gloves, boots, and respirator.** Apply the acid solution to the floor by mop or spray method. Allow the acid solution to work on the surface for about 10 minutes to neutralize any latent stripper. Do not allow the acid solution to remain on the surface for longer than 20 minutes.
10. Use rinse & reclaim extraction equipment again to thoroughly remove all of the acid solution.

If the floor is to be recoated, check the pH of the surface. If the pH is between 6 and 8, allow the floor to dry thoroughly before reapplication of Adsil protective coating.

PRODUCT TESTING: MicroGuard1® product testing is performed by third-party testing laboratories, or in the Adsil lab, in full compliance with each particular ASTM or ISO testing protocol.

- ASTM B117 Salt Chamber Test – 25,300 hours
- ISO 16773-3 EIS Barrier Test – 8.19 log Z ohms
- ASTM G 21 Fungal Growth Test– Rated Zero (0) Growth
- ASTM D3363 Pencil Hardness Test – 9H
- ASTM D3359 Cross Hatch Adhesion – 5B adhesion
- ASTM G 154 UV/Accelerated Weathering Test – no cracking, erosion, oxidation
- ANSI/NFSI B101.3 DCOF Rating - .43 (High Slip Resistance Potential)
- VOCs – 201g/L (call Adsil for use in SCAQMD in CA)
- REACH Exempt
- RoHS Compliant
- ASTM E303-22 DCOF w/Non-Skid – 0.51

Adsil

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