

TYPE	FILM THICKNESS	APPLICATION METHOD	THINNER	CLEAN UP	DRY TIME		
					TACK	USE	FULL CURE
Clear, Inorganic, Reacted Siloxane	Wet 25.4-38.1 microns (1 – 1.5 mils) Dry 6 - 8 microns	AS1-2 HVAC Spray System	None	MicroKleen™ AD1-919	1 Hours (average)	2 - 4 Hours (light use)	5 Days (75° F, 50% RH)

DESCRIPTION: MicroGuard[®] AD35 is designed for application onto air handling equipment to resist the destructive effects of corrosive environments, such as salt-laden coastal air, or industrial environments. Its low solids, low molecular weight formula penetrates deeply into the coil fin-pack, thus, ensuring maximum protection. Extensive field and laboratory testing has demonstrated that MicroGuard[®] AD35 significantly inhibits mold growth, which promotes better indoor air quality. Plus, its micro-thin film does not act as an insulating barrier to heat exchange efficiencies, rather, air-flow efficiencies are maintained and energy costs may be reduced over the life of the HVAC/R Unit asset. Ideal for field or shop installations.

- **Condenser Coils** MicroGuard[®] AD35 provides maximum corrosion protection over bare aluminum HVAC/R coils (all configurations), and fan blades. Suitable for weathered factory painted cabinets. Excellent for protecting stainless steel & non-ferrous alloys. **Will not** protect galvanized steel or ferrous metal. **Never coat copper fin units.**
- **Evaporator Coils**
- **Powder Coated Cabinets**
- **Non-Ferrous Metals**

SURFACE PREPARATION:

1. If the A/C unit is field installed, disconnect the power supply; implement lock out/tag out. Remove access doors and fan guards in accordance with professional industry standards. Mask or protect all non-hermetically sealed electronic parts, such as circuit boards and relays. Gently broom clean or vacuum the fin and tube areas free from dust, dirt, cobwebs, leaves and/or other debris. If necessary, carefully straighten bent or folded fins with a fin comb.
2. Using the AS1-4 Adsil Pump & Wand Soap System, flood the coil fins, fan blades and cabinet with MicroKleen™ Industrial Cleaner & Degreaser PLC-1 reduced 1:1 (20:1 on older faded cabinets). Use hot water if available. Apply the diluted PLC-1 from the bottom to the top of the coils on both sides. Allow the cleaner to soak on the surface for 5 minutes. Do not allow the cleaner to dry. If spot drying occurs, lightly refresh with more PLC-1. After 5 minutes, rinse away the cleaner with clean tap water. Repeat the cleaning and rinsing process. Rinse well beyond the “suds” removal phase to a surface pH of 6 to 8. Use an electric leaf blower to help dislodge water trapped between the fins (never use gasoline powered blowers). Where regulated, capture and reclaim all rinse material. Neutralize and dispose of rinse effluent per any existing regulations.
3. After cleaning and rinsing has been accomplished, thoroughly flush all traces of cleaner residue from the AS1-4 Pump & Wand Soap System with liberal quantities of clean water. Next flush the coil and surfaces with MicroKleen™ AD72-930 Final Rinse. Methodically work from the bottom to the top of the coil on both sides. Do not rinse off the AD72-930. Allow the unit to dry completely (run unit in cooling mode if possible). Use an electrically powered leaf blower to help with final drying.

MIXING INSTRUCTIONS: MicroGuard[®] AD35 is a three-component material and must be properly mixed before use. AD35 is packaged in kit form, with separate (short filled) containers for Components **A, B & C**.

Mixing options:

A) MS5 -1 Product Mixer Instructions (gallon kit / large quantities):

1. Pour Component **A** into a clean, white HDPE 5-gallon plastic bucket, then, pour in Component **B** liquid into the **A** Component.
2. Using the Adsil MS5-1 Product Mixer, blend the **A & B** Components for 15 minutes. Keep the bucket covered with a cut ‘V’ notched lid during the mixing process. You will notice an exothermic heat reaction during mixing. This is normal.
3. Next, add the Component **C** into the admixture of the **A & B** Components. Blend for 15 additional minutes.
4. Cover the bucket with a full lid and set aside for 30 minutes to chemically induct in a location away from heat sources or direct sunlight. The usable pot life of mixed material is 4-6 hours depending on ambient temperature.

B) MS-S Magnetic Mixer Instructions (quart kit / small quantities):

1. Using the Adsil MS-S Magnetic Mixer, pour Component **B** into Component **A** bottle. Drop in the magnetic stir bar, place the cap loosely on the container and mix for 15 minutes. You will notice an exothermic heat reaction during mixing. This is normal.
2. Add Component **C** into the admixture of Components **A & B**. Place the cap loosely on the container and blend for 15 additional minutes.
3. Remove the stir bar, cap the container and set aside for 30 minutes to chemically induct in a location away from heat sources or direct sunlight. The usable pot life of mixed material is 4-6 hours depending on ambient temperature.

Follow mixing order & times precisely, as stated above. Keep cap loose on bottle. Do not deviate from these published instructions.

APPLICATION:

- **Coil Fin Pack** – The surface must be completely dry before application begins. Read all applicable SDS information. MicroGuard[®] AD35 **must be applied** using the Adsil AS1-2 HVAC Spray System; (continued)

APPLICATION: *(continued)*

- **Coil Fin Pack** *(continued)* - a dual regulated pressure pot and spray wand assembly. Set the fluid pressure gauge (first regulator) to 10 - 12 psi and the air pressure gauge to 40 - 45 psi. Position the spray wand tip about 4 – 6 inches from the surface and fully trigger the wand. Work from the bottom to the top across the coil fin-pack (two times). Spray from both sides of the coil. If you can see spray mist passing through the coil to the other side, the pressure gauge settings are sufficient. If not, increase the pressure settings of the gauges by 5 psi increments until total penetration of the AD35 is realized through the coil fin-pack. Be sure to fully flood the coil fin-pack. After excess coating has stopped dripping off fins, lightly blow any excess product accumulation (drops) off the bottom of the fins with an electric leaf blower or low pressure compressed air nozzle.

NOTE: Do not recoat over the first layer of coating after 30 minutes of curing time has lapsed (or the first coat will crinkle).

- **Cabinet Enclosures** – When coating new (glossy) painted cabinets, wet sand the paint with 220 grit sandpaper or a green 3M pad to create a profile for the coating to adhere to. For older (oxidized) cabinets, wash off paint chalk using PLC-1 at 20:1 with water and use mechanical agitation (such as a soft brush or rag). Rinse well with water and let dry.

Cabinet Coating Application Options:

Option 1: Use an HVLP paint gun to spray a very light coat onto the cabinet (this works well for older, oxidized units).

Option 2: Dampen a cheese cloth rag with coating, and wipe on a thin film that is free from runs and sags.

Option 3: Use a 4" – 6" white high-density foam paint roller to apply a thin film onto the cabinet.

Re-assemble the HVAC/R Unit, re-power at the circuit box (if field connected).

PRODUCT YIELD: After calculating the amount of product to mix & induct, add a minimum of 10% additional product.

- Residential HVAC/R (5 tons or less): 1 quart of MicroGuard® AD35 will treat approximately 4 tons.
- Commercial HVAC/R (6-100 tons): 1 quart of MicroGuard® AD35 will treat approximately 5 to 6 tons.
1 gallon of MicroGuard® AD35 will treat approximately 12.5 tons.

Commercial yield estimates are based on 3 row coils and 16 fins per inch. Actual yield is predicated on the number of fins per inch and the depth of the coil. Increase proportionally for additional fins per inch and coil rows.

CURING INFORMATION:

MicroGuard® AD35 cures by a cross-linking chemical reaction. This protective clear treatment dries to the touch in about 1 -2 hours, but a full cure is not realized for 5 days. The coating *can* reach full cure faster if heated by running the condenser unit in cooling mode.

Avoid contact with water for 4 hours after installation.

- **MicroGuard® AD35 does not cure when air, material or surface temperatures are below 60° F. Do not mix or 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 (IPA).
- 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. **Do not** allow AD1-919 to get on any uncured coating surfaces (fins, cabinets, etc.) because it will cause the coating to fisheye and leave bare areas for corrosion to begin.
- Dispose of alcohol saturated cloths in a safe manner.

POST-INSTALLATION CLEANING & MAINTENANCE:

- Periodic post cleaning of the coil fin-pack will help improve the general operating efficiencies of the HVAC/R unit. For proper post cleaning, use a neutral pH cleaner (6-8 pH). Using the AS1-4 Adsil Pump & Wand System, flood the surface and allow the cleaner to "work" for 2 to 3 minutes. Then, rinse liberally with clean tap water.
- To maintain peak operating efficiency of the HVAC/R unit, cleaning maintenance must occur at least every 180 days, per published specifications.
- **Do not use harsh commercial coil cleaners or high alkaline cleaners for post-installation maintenance.**

ASTM LAB TESTING:

All MicroGuard® product performance testing is performed by accredited, third-party testing laboratories in full compliance with each particular ASTM Testing Protocol.

- ASTM B 117 Salt Chamber – 6,000 hours (aluminum)
- ASTM D 2485, High Temperature, Method B
- ASTM D 4060 Taber Abrasion (CS-10 Wheel @ 1000 Cycles) – 12.5 mg loss
- ASTM G 21 Fungal Growth – Zero (0) Growth

Adsil Cares:

Please handle all chemicals safely and use the proper personal protective equipment (PPE).

Adsil

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