

## Technical Bulletin AGM-01

### AGM-700™ Anti-Glare, Anti-Microbial Coating

#### Description

**AGM-700™** is a primer free, permanent **anti-glare** coating with excellent anti-microbial properties applied in-house to plastic substrates. This coating reduces reflected glare from light sources, thereby enabling a clearer view of the underlying printing, panel or artwork. This allows the underlying display to be read quickly, comfortably and clearly. The anti-microbial component kills microbes upon contact thereby reducing transmission of pathogens from the coated surface.

**Anti-Glare** deals with **external** sources of reflection off a surface – excessive glare impacts the readability of the image or information being displayed. **AGM-700™** uses diffusion mechanisms to break up the reflected light from the viewing surface to the observer. Diffusion works by reducing the coherence of the reflected image, thereby reducing the interference with viewing of the intended image contained in the display.

**AGM-700™** Anti-microbial coating is infused with our antimicrobial that will not leech, cause discoloration or affect the final product.

#### Applications

**AGM-700™ Anti-glare** coated plastics can be used wherever surface glare is a concern. The application is a low temperature process, producing a tough crosslinked scratch resistant matrix. Ideal applications include instrument gauges, artwork, hospital digital displays, and other transparent plastic surfaces where reflected glare, finger prints, and pathogen transmission is an issue. Anti-glare plastics can also be used as privacy screens without blocking light transmission.

The anti-glare sheet should be positioned as close as possible to the surface being viewed to obtain a clear image. An excessive air gap would reduce the clarity of the image proportional to the distance. ½ inch or less is recommended.

#### Properties

**Coating Adhesion (ASTM D3359)** - No coating removal in standard crosshatch tape pull adhesion testing.

**Gloss (ASTM D523)** - 50 ± 5

**Good hardness and abrasion resistance** - Substantial improvement in the abrasion resistance of the coated plastic's surface.

**Transmittance (ASTM D1003)** - 89 ± 2

**Bacterial Reduction (ISO 22196)** S. aureus +99%, E. Coli +99%

#### Cleaning Instructions

The **AGM-700™ Anti-glare** coating is hydrophobic, soil and scratch resistant with antimicrobial properties. If the surface has been subjected to contaminating conditions, observe the following cleaning instructions to maintain the function and integrity of the coating:

Clean with water, mild glass cleaners that do not leave a residue or a solution of mild dishwashing soap and water, rinse with water after cleaning. Dry with a clean, soft microfiber cloth - **Do not** rub dry with coarse paper towels or soiled towels as this can scratch the surface and eventually wear off the coating. Do not use cleaning agents containing an abrasive.

#### Product Availability

**AGM-700™ Anti-glare** coating can be applied to many clear & tinted plastics including acrylics, polycarbonate, PETG, PET, PVC, and polystyrene. It can be applied on one or both sides or it can be combined with SciCron Technologies' **C-300™ ESD** coating or **Mar-Con® 550 Hard Coat** for a two-side **Dual-Coat™** product. Coating application drying conditions dictate anti-glare efficiency, maximum trimmed sheet size is 48"x118". Smaller sizes are also available. **AGM-700™ Anti-glare, Anti-Microbial coating can also be custom coated to customer supplied sheets, parts, and assemblies.**

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## Technical Bulletin AMC-01

### AMC-800™ Anti-Microbial Clear Coating

#### Description

AMC-800™ is a primer free, permanent high gloss clear hard coat system with excellent anti-microbial properties applied in-house to plastic substrates. Our scientifically proven anti-microbial technology will provide lasting and effective protection against harmful bacteria, mold, fungi, and viruses\* by up to 99.9%. The anti-microbial component kills microbes upon contact thereby reducing transmission of pathogens from the coated surface. AMC-800 is an easy to clean, hydrophobic, non-leaching, abrasion resistant coating with excellent antimicrobial properties.

SciCron's antibacterial technology will offer lasting protection from bacteria, including superbugs such as MRSA and E. Coli. The coating contains antiviral technology that makes the active ingredient effective against viruses, such as the prevalent H1N1 influenza virus. It is perfect for use in hygiene conscious environments where cleanability, scratch resistance, and the transfer of microbes is a concern. AMC-800™ Anti-Microbial clear coating is infused with permanent antimicrobial that will not leech, cause discoloration, or affect the final product.

**\*Centers for Disease Control and Prevention (CDC) have categorized the SARS-CoV-2 virus at biohazard level 3 and above, meaning the SARS-CoV-2 (COVID-19) virus will not be available for public commercial testing at this point in the pandemic.**

**\*Testing to the BS ISO 21702:2019 standard, SciCron's AMC-800 active ingredient was proven effective against feline coronavirus, strain Munich, with a reduction of 90% in 2 hours. This should not be used for claims against the novel virus SARS-CoV-2 (COVID-19), but it does demonstrate the antiviral efficacy of this technology against a member of the coronavirus family, the feline coronavirus, strain Munich. Actual COVID-19 and other antimicrobial evaluations of our products are ongoing, results are expected in the future.**

#### Applications

AMC-800™ Anti-Microbial clear coated plastics can be used wherever hard coated plastic is required and antimicrobial treatment is needed. The application is a low temperature process, producing a tough crosslinked scratch resistant matrix. Ideal applications include touch screens, hospital/medical displays and surfaces, and other transparent plastic surfaces where pathogen transmission is an issue. AMC-800 can be heat bent in smooth curves and line bent 90 degrees without cracking or hazing. Testing has shown, limited elongation of the coating is not an issue. Tight inside curves that compress the coatings can haze due to the fact that the coating is crosslinked and cannot compress upon itself. Deep drawn vacuum thermoforming is not suitable for this coating. Deep drawn and machined parts can be custom coated after processing.

#### Properties

**Coating Adhesion (ASTM D3359)** - No coating removal in standard crosshatch tape pull adhesion testing.

**Gloss (ASTM D523)** - 140 ± 5

**Haze** - 0.5 ± 0.5 1/8" PC substrate

**Good Hardness & Abrasion Resistance** - 2lb. weight, 1" contact area, 0000 steel wool - 25 double rubs, no loss of clarity

**Transmittance (ASTM D1003)** - 90± 5, 1/8" PC substrate

**Bacterial Reduction (ISO 22196)** - S. aureus +99%, E. Coli +99%

#### Cleaning Instructions

The AMC-800™ Anti-Microbial clear coating is hydrophobic, soil and scratch resistant with antimicrobial properties. If the surface has been subjected to contaminating conditions, observe the following cleaning instructions to maintain the function and integrity of the coating:

Clean with water, mild glass cleaners that do not leave a residue, or a solution of mild dishwashing soap and water, rinse with water after cleaning. Dry with a clean, soft microfiber cloth - **Do not** rub dry with coarse paper towels or soiled towels as this can scratch the surface and eventually wear off the coating. Do not use cleaning agents containing an abrasive.

#### Product Availability

AMC-800™ coating can be applied to many clear & tinted plastics including acrylics, polycarbonate, PETG, PET, PVC. It can be applied on one or both sides or it can be combined with SciCron Technologies' C-300™ ESD coating or Mar-Con® 550 Hard Coat for a two-side Dual-Coat™ product. **AMC-800™ Anti-Microbial clear coating can also be custom coated to customer supplied sheets, parts, and assemblies.**

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