



Soli-Shield Interior Industrial Coating with Antimicrobial Agents – 25AM

The **Soli-Shield Interior Industrial Coating with Antimicrobial Agents – 25AM** is a proprietary high-solids flexible epoxy coating that was developed especially for protecting cementitious, masonry and metallic substrates – including roofs, without limitation. The **Soli-Shield Interior Industrial Coating with Antimicrobial Agents – 25AM** employs an advanced technology modified flexible epoxy ceramic coating system that is designed to reduce heat transfer (*conduction, convection, thermal radiation and the transfer of energy by phase changes*) and advanced proprietary antimicrobial infusion technology.

The **Soli-Shield Interior Industrial Coating with Antimicrobial Agents – 25AM** incorporates advanced antimicrobial technology that is a non-leaching silicon-based antimicrobial that imparts bacteriostatic¹, fungistatic² and algistatic³ properties into the **Soli-Shield Interior Industrial Coating with Antimicrobial Agents – 25AM**.

The **25AM**'s advanced proprietary antimicrobial technology uses a microbiostatic⁴ agent that actively protects the infused coating from deterioration & discoloration due to growth and/or attachment of most forms of fungi, algae and bacterial organisms, such as STAPH and MRSA (without limitation).

1. **Bacteriostatic:** A biological or chemical agent that stops bacteria from reproducing, while not necessarily killing them otherwise.
2. **Fungistatic:** Inhibiting the growth of Fungi.
3. **Algistatic:** Having the property of inhibiting algal growth.
4. **Microbiostatic:** Inhibits the growth or multiplication of microbiota.

Some of the ASTM Tests that have been undertaken, include the following – without limitation

ASTM B-117	Salt Fog Test - 500-hours: Passed
ASTM C-518	k-value: 0.0139 (Btu)(in)/(h)(ft ²)(°F) at 10-mils λ-value: 0.002 W/mK at 0.25 mm
ASTM D-2240	Hardness Shore D: 85
ASTM E-108-91A	Fire Class Rating: Class A Flame Spread: < 5 Smoke Developed: < 25
ASTM D-638	Tensile Strength: 1,393-psi
ASTM E-96	Vapor Transmission: 0.7 perms
ASTM G-53	500-hour accelerate weathering test: double bend with no cracking, highly flexible

Features, Advantages and Benefits

- ✓ UV, weather, Fire, Chemical, Salt and Abrasion Resistant.
- ✓ Superior adhesion to most substrates; No Topcoats are necessary
- ✓ Extremely durable wear resistant surface
- ✓ Can be applied by brush, roller or with spray equipment for Interior or Exterior use
- ✓ UV, Weather, Chemical, Salt and Abrasion Resistant
- ✓ Environmentally Friendly: Contains no Zinc, Lead or Chromates – Zero “0” VOC formulations are available.
- ✓ Can be used for roofs, walls, ducts, basements, seawalls etc., and on a variety of substrates
- ✓ Can be used to provide a durable protective finish on equipment.
- ✓ Approximate pot life (once mixed) is 4 to 6-hours at 80°F
- ✓ Approximate tack dry time is 1 to 2-hours at 80°F
- ✓ Approximate initial curing time is 6 to 8-hours at 80°F
- ✓ Recommended use thickness is 10-mils (dry). Coverage is approximately 100-ft² per gallon at 10-mils (dry) thickness.
- ✓ Can easily be built up to over 40-mils for increased performance, where needed.
- ✓ The Shelf life for original, unopened containers is approximately 1-year, if stored properly
- ✓ Minimum order size packaging: 25-gallon kits (5-gallons of Activator and 20-gallons of Base)

MICROORGANISM EFFECTIVITY LIST

Human Viruses

Adenovirus type 2	Human Coronavirus	Parainfluenza type 1
Cytomegalovirus	Influenza A/Brazil Virus	Poliovirus type 1 (Chat strain)
HBV (Hepatitis B Virus)	Influenza A/Victoria(H3N2) Virus	Respiratory Syncytial Virus
HCV (Hepatitis C Virus)	Influenza A2-Asian Virus	Rotavirus
Herpes Simplex type 1 Virus	Influenza B Virus (Allen strain)	Vaccinia Virus
Herpes Simplex type 2 Virus	Influenza C Virus (Taylor strain)	
HIV-1 (AIDS Virus)	Measles Virus	

Non-Human Viruses

Avian Influenza/Turkey/ Wisconsin Virus	Porcine Parvovirus
Canine Coronavirus	Porcine Respiratory & Reproductive Syndrome Virus (PRRSV)
Canine Distemper Virus	Porcine Rotavirus
Canine Herpesvirus	Pseudorabies Virus
Equine Herpesvirus	Transmissible Gastroenteritis (TGE)
Equine Influenza	T1 bacteriophage
Feline Calicivirus	T4 bacteriophage
Norovirus	Vesicular Stomatitis Virus (VSV)
Feline Infectious Peritonitis	Bovine. Viral Diarrhea Virus (BYDV)
Infectious Bovin	Avian Influenza Virus (H5N1)
Rhinotracheitis (IBR)	
Newcastle Disease Virus	

Isolates from AIDS Patients

Aspergillus niger	Cryptococcus neoformans	Staphylococcus aureus
Candida albicans	Pseudomonas aeruginosa	Streptococcus pneumoniae

Gram Positive Clinical Isolates

Staphylococcus aureus (Toxic shock)	Streptococcus haemolyticus
Staphylococcus epidermidis	Streptococcus pyogenes
Staphylococcus saprophyticus	

Gram Negative Clinical Isolates

Acinetobacter calcoaceticus var. anitratus	Klebsiella oxytoca
Acinetobacter calcoaceticus var. lwoffii	Klebsiella pneumoniae
Bordetella bronchiseptica	Morganella morganii
Brevundimonas diminuta	Proteus mirabilis
Burkholderia cepacia	Proteus vulgaris
Enterobacter agglomerans	Pseudomonas aeruginosa
Enterobacter cloacae	Pseudomonas fluorescens
Enterobacter gergoviae	Pseudomonas pseudomallei
Enterobacter liquefaciens	<i>Pseudomonas putida</i>
Escherichia coli (Urinary)	<i>Pseudomonas stutzeri</i>
Escherichia coli (Wound)	<i>Serratia marcescens</i>
Flavobacterium meningosepticum	<i>Sphingomonas paucimobilis</i>
Hafnia alvei	

Pathogenic Fungi

Trichophyton mentagrophytes

Environmental Fungi

Aspergillus candidus	Penicillium chermesinum	Penicillium spinulosum
Aspergillus niger	Penicillium oxalicum	Ulocladium sp.

Other Bacteria

Actinobacillus pleuropneumoniae	Listeria monocytogenes
Actinomyces pyogenes	Pasteure haemolyticus
Bacillus cereus	Pseudomonas aeruginosa
Bacteroides fragilis	Rhodococcus equi
Corynebacterium ammoniagenes, (Brevibacterium ammoniagenes)	Salmonella enterica
Bordetella bronchiseptica	Salmonella schottmuelleri
Burkholderia pickettii	Salmonella typhi
Campylobacter jejuni	Shigella dysenteriae
Chryseomonas luteol	Staphylococcus aureus
Corynebacterium pseudotuberculosis	Staphylococcus auriculari
Enterobacter aerogenes	Staphylococcus capitis
Enterococcus faecalis	Staphylococcus hominis
Enterococcus faecium	Staphylococcus simulans
Enterococcus hirae	Stenotrophomonas maltophilia
Escherichia coli	Streptococcus equi var. equi
Escherichia coli strain 0157:H7	Streptococcus equi var. zooepidemicus
Escherichia vulneris	Streptococcus pneumoniae (PRSP)
Haemophilus influenzae	Streptococcus pyogenes
Klebsiella pneumoniae	Streptococcus salivarius
	Yersinia enterocolitica

Antibiotic Resistant Gram-Negative Bacteria

Pseudomonas aeruginosa (Sulfa, Cefatoxime, Nitrofurantoin, Tetracycline, Amikacin, Ampicillin, Cephalothin and Bactine Resistant)
Escherichia coli (Ampicillin, Tetracycline, Penicillin and Sulfa Resistant)
Klebsiella oxytoca (Ampicillin, Sulfanilimide and Tetracycline Resistant)
Klebsiella pneumoniae type 1 (Ampicillin, Tetracycline, Cephalothin and Sulfa Resistant)
Morganel/a morganii (Penicillin and Tetracycline Resistant)
Enterobacter agglomerans (Ampicillin and Sulfanylimide Resistant)
Salmonella (Antibiotic Resistant)
Enterobacteriacia with extended beta-lactamase resistance (Ampicillin and Piperacillin Resistant)

Antibiotic Resistant Gram-Positive Bacteria

Enterococcus faecalis (Vancomycin Resistant-VRE)
Enterococcus faecium (Vancomycin Resistant-VRE)
Staphylococcus aureus (Methicillin-MRSA, Community Associated Methicillin Resistant CA-MRSA PVL Positive)
Staphylococcus aureus (CA-MRSA Genotype USA 400)
Staphylococcus aureus (Penicillin G, Penicillin, Ampicillin, Cefazolin, Cefatoxime, Chloramphenicol, Ciprofloxacin, Clindimycin, Erythromycin, Oxacillin, Rifampin, Tetracycline Resistant)
Staphylococcus aureus (Vancomycin Resistant - VRSA)
Staphylococcus aureus (Vancomycin Resistant Intermediate-VISA)
Staphylococcus epidermidis (Ampicillin and Drug Resistant)

- The Antimicrobial Agent used is registered under EPA Reg. No. 83019-1.
- TGS is registered under the EPA Establishment Number 96098-NV-1.

* Confidential copies of reference literature are available upon request from bonified requestors, in combination with an in-place **TGS Mutual Non-Disclosure Agreement (M-NDA)**.

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