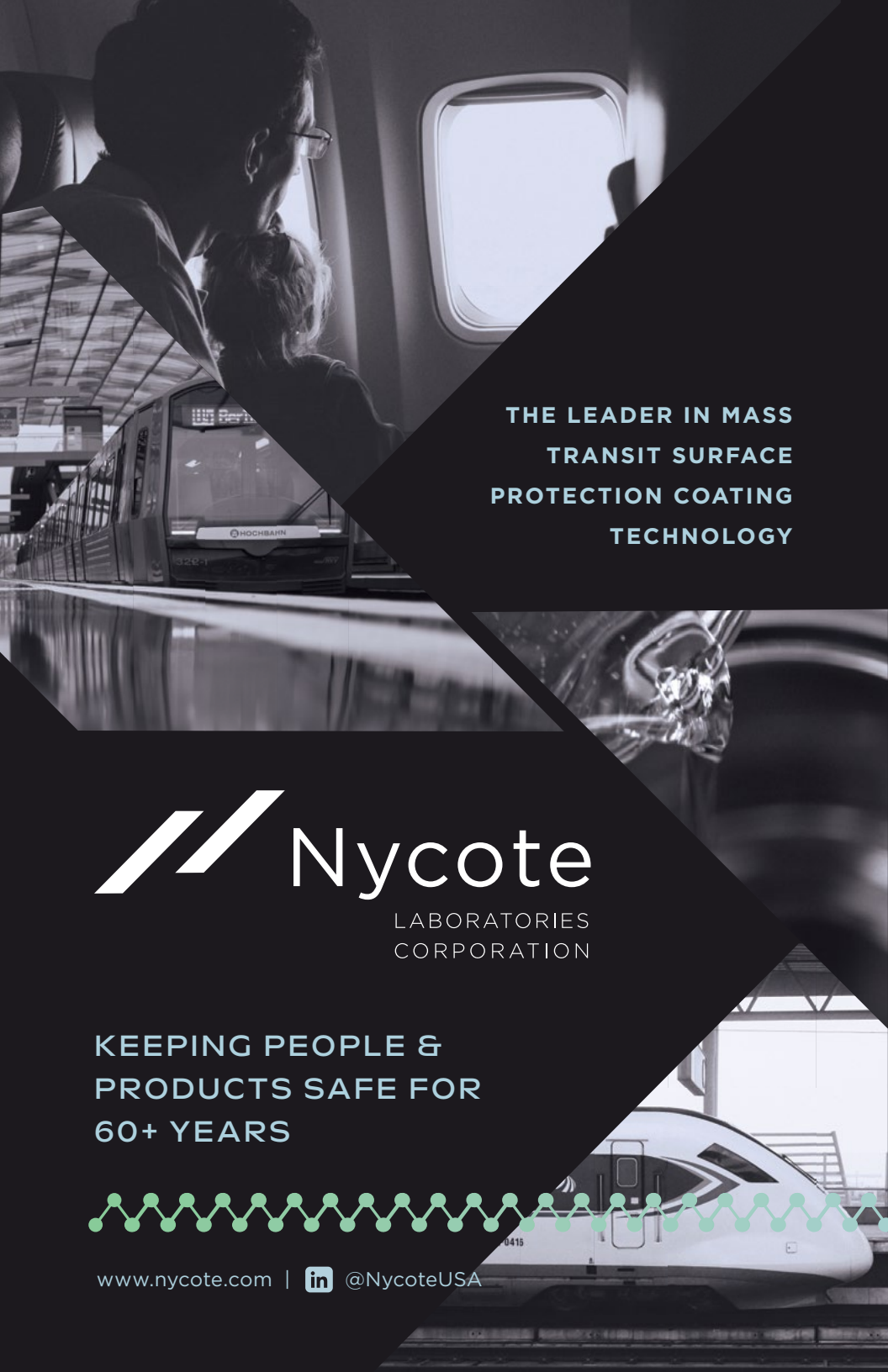

THE LEADER IN MASS
TRANSIT SURFACE
PROTECTION COATING
TECHNOLOGY
Nycote
LABORATORIES
CORPORATION
KEEPING PEOPLE &
PRODUCTS SAFE FOR
60+ YEARS
www.nycote.com | @NycoteUSA

SIMPLE. SINGLE PASS SOLUTION

Traditionally trusted in aerospace for 60 years, Nycote has expanded into new industries offering next generation technology that protect high value materials. Our liquid nylon surface protection is a revolutionary barrier against corrosion, friction & conductivity for mission-critical aerospace, automotive, medical & marine applications.

Nycote's unique liquid nylon formulation eliminates pinhole voids with a fast and convenient single pass solution.

SIGNIFICANT PERFORMANCE ADVANTAGES

- Clear lightweight hybrid nylon formulation for uniform coverage
- Microbial corrosion protection
- Self-leveling film technology for 100% encapsulation protection
- Simple surface preparation for rapid application
- Custom tinting available
- Rapid global delivery (4-6 days lead time)
- Single pass solution for easy application
- Reusable over shelf life
- Single source protection against hydraulic fluids, fuels, greases, salt spray, oxidation, conductivity and other corrosive elements
- Available in bulk or in custom applicators (Nycote applicator pen or a one-ounce bottle with brush)
- EU/IATA/REACH regulation compliant
- Nycote coatings meet the standards for outgassing
- Nycote 7-11 meets International Organization for Standardization Method 22196 - measurement of antibacterial and anti-viral activity on plastics and other non-porous surfaces



THE ONLY CLEAR NYLON EPOXY POLYMER

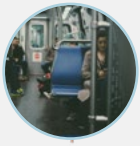
CHROME-FREE

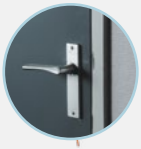
PROVEN & TRUSTED BY MASS TRANSIT INDUSTRY LEADERS

Train Top: exposed to elements



Seating & window coverings





Lavatories

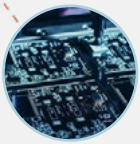


Windows: pitting & bug debris

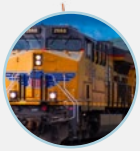


Door handles & levers

Hydraulic brake & pump systems



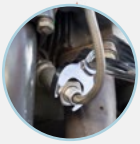
Control Rooms: Circuitry & PCB Boards



Interior & exterior lighting



Underbelly: Electrical components/ battery compartments



Hydraulic system connections

NYCOTE EXAMPLE APPLICATIONS WITH OUR NEXT-GEN, ANTI-VIRAL PROTECTION COATINGS

PRODUCT SPECIFICATIONS

Physical Properties	NYCOTE® NYFORM		NYCOTE® TRACESAFE		NYCOTE® NYSAFE	
Temperature Range	-70º F to 300º F (-56º C to 148º C)		-70º F to 300º F (-56º C to 148º C)		-70º F to 300º F (-56º C to 148º C)	
Resin/Film	**Resin**	**Film**	**Resin**	**Film**	**Resin**	**Film**
Color	Clear	-	Clear	-	Clear	-
Viscosity: @ 72º F. Zahn #2 cup	50-120 sec	-	50-120 sec	-	21-32 sec	-
Solid Content (Non-Vol.)	19%	-	17%	-	19%	-
Flash Point: C.O.C	70°F	-	70°F	-	70°F	-
Pounds per Gallon @ 78° F	7.430±2 lb.	-	7.430±2 lb.	-	7.4±2 lb.	-
Shelf Life @75° F	6 months	-	12 months	-	6 months	-
Film Thickness, 1 Dipcoat	-	.5 mil	-	.5 mil	-	.5 mil
Coverage per Gallon	300 sq. ft	-	300 sq. ft	-	300 sq. ft	-
Tack-Free / Cure Time, Full cure (can't be forced by heat) 50% RH @ 70° F	-	1 hr/72hrs	-	1 hr/72hrs	-	1 hr/72hrs
Film Pencil Hardness ASTM D3367	-	3-H	-	3-H	-	3-H
Adhesion to ASTM D3359-5B	-	0% affected at 180 pull	-	0% affected at 180 pull	-	0% affected at 180 pull
Abrasion Resistance (500 Gr. #17 Wheel-100 cycles	3.0 mgm	-	3.0 mgm	-	3.0 mgm	-
Scratch Hardness - 1000G Load	-	Pass	-	Pass	-	Pass
Water Resistance - Pass no separation or cracks on ID	-	Pass	-	Pass	-	Pass
Sheer Strength	-	>3.9	-	>3.9	-	>3.9
Elongation Break	-	>200	-	>200	-	>200
Heat Force Cure	-	2-HR	-	2-HR	-	2-HR
ASTM 2832 - Solids Content Non-volatile	-	Pass	-	Pass	-	Pass
UVB @300 hours Resistant to ASTM G154-No degradation of the coating / Nylon will yellow slightly over time	-	Pass	-	Pass	-	Pass
ASTM D2240 - Durometer Hardness	-	Shore A: 76	-	Shore A: 76	-	Shore A: 76
ASTM D638 - Tensile Strength	-	1.71 MPa	-	1.71 MPa	-	1.71 MPa
ASTM D570 - Water Absorption	-	-6.07%	-	-6.07%	-	-6.07%
ASTM D3418 - Glass Transition Temp vis DSC	-	7.69 °C	-	-7.69 °C	-	7.69 °C
ASTM D149 - Dielectric Strength	-	1.06 kV/mm	-	1.06 kV/mm	-	1.06 kV/mm
ASTM D257 Surface Resistivity Testing (Ω/sq.cm)	-	3.82E+10	-	3.82E+10	-	3.82E+10
ASTM D257 Volume Resistivity Testing (Ω*cm)	-	1.48E+11	-	1.48E+11	-	1.48E+11

PERFORMANCE DELIVERY

RESISTANCE TO FLUID TESTED AS EXCELLENT (30 days immersion @ 75° F)	ADHESION CHARACTERISTICS TESTED AS EXCELLENT
Fuels	Untreated Aluminum
Gasoline	Chem-filmed (Irradiated) Aluminum
Kerosene	Glass
Hydraulic Fluid	Anodized Aluminum
100% RH @120° F	Fiberglass
Distilled Water	Zinc Chromate Primed Aluminum
Tap Water	Synthetic Rubber
Salt Spray	Metals / Composites / Fabrics
80% Fuel Bacteria Laden Distilled Water	Titanium / Stainless Steel / Magnesium Alloy
H2O Immersion Composite (Submersed 7 days)**	Carbon Composites / Tin / Vinyl
H2O Immersion Metal**	PTFE / Viton / TPU
Potassium Formate Submersion 24-hours	Adhesion measuring by adhesion tape test JAW ISO 2409 Dry Test Classification Result 0 (0 indicates best performance on a scale of 0-3)**

NYCOTE® TECHNOLOGICAL PRODUCT INFORMATION

Nycote provides clear hybrid nylon polymer coatings to protect assets with an easy-to-apply Solution, keeping your products safer, longer.

Nycote® is a modified liquid-nylon coating that provides protection to overcome material limitations and guard metals, plastics and composites from wear, corrosion, friction and conductivity. Nycote® products are used around the world by traditionally leading OEM manufactures and aerospace customers.

FEATURES & BENEFITS



- Simple surface preparation for rapid application
- Easily applied by brush, spray, roll-on or dip method
- Single source protection against salt spray, oxidation, conductivity and other corrosive elements
- Can be applied as a resin fiber reinforced composites
- Custom tinting available
- Self-leveling formulation for a uniform appearance
- Antimicrobial & Anti-viral surface solutions for all mission- critical applications
- EU/IATA/Reach regulation compliant; rapid global delivery (NOT SVHC)
- Counterfeit protection with full AI traceability throughout the entire supply chain

SPECIAL QUALIFICATIONS

ECSS-Q-ST-70-02 Outgassing	Compliant (RML) < 1, 00%, CVCM < 0, 10%—7-11 & 99
ISO22196 Coating efficacy to microorganisms S. Aureus ACCT6538 & E. Coli ACCT9739. Effectively kills microbes. Tested effective to SARS-CoV-2	99.99003% Kill — 7-11 & 99
Permeation Testing to: MIL-DTL-5578D Detail Specification Tanks, Fuel, Aircraft, Self-sealing & partially self-sealing fuel tanks for use on aircraft / MIL-DTL-27422F Detail Specification for the Tank, Fuel, Crash-resistant, Ballistic-Tolerant, Aircraft / MIL-T-52983G Military Specification Tanks, Fabric, Collapsible, 3k, 10k, & 50k Gallon Fuel	

LEADING NYCOTE APPLICATIONS

Corrosion: Windshields • TPU- Fuel Systems • Nylon protection to prevent abrasion

Electrical: Probe Sensor • Pneumatic activators

Aesthetic: Permanent high touch surface protection against microbial / viral spread, abrasion & impact, wear & tear.

FLAME TEST RESULTS: NYSAFE, NYFORM, TRACESAFE

Per FAA Appendix F and to FAR 25.853; 25.855; 25.1713 - PASS

60 sec burn/vertical - 15 sec extinguish time / 6” burn length - PASS

12 sec burn/vertical - 15 sec extinguish time / 8” burn length - PASS

30 sec burn/vertical @45° angle - 15 sec extinguish time - PASS

30 sec burn/vertical @60° angle - 30 sec extinguish time / 3” burn length - PASS

PRODUCT COLLABORATIONS

AIRBUS: Corrosion resistance and electrical system protection on all platforms, commercial and military.
BOEING: Corrosion resistance and electrical system protection on all platforms, commercial and military. Boeing R&T composite performance and aesthetic improvement.
EMBRAER: Corrosion resistance and electrical system protection on all platforms, commercial and military.
SIERRA SPACE: Composite reinforcements on vacuum pressure seals.
RAYTHEON: Anti-ballistic fuel bladder applications.
LOCKHEAD MARTIN: Improve corrosion resistance on F-18 F-35 platforms.
JAMCO: Interior composites & textiles, developed a high-performance antiviral coating tested to SARS-CoV-2, fungus, S. Aureus, and Staphylococcus.

AND MANY MORE...



NYCOTE® TRACESAFE

TraceSafe is a machine-readable protective surface coating made from Nycote's flagship 7-11 & 99 coatings. This high-performing coating creates an optical fingerprint that can be customized to identify specific I.P. and it's owner, significantly reducing counterfeit, product tampering, and allows traceability of parts throughout the supply chain.

NYCOTE® NYSAFE

Nysafe 700-AV & 900-AV is a 2-part, cross-linked nylon polymer. This high performance coating is derived from Nycote 7-11 and 99 with a highly effective, safe, and antiviral formulation tested to protect against SARS-CoV-2, s. Aureus, staphylococcus, fungus and other bacteria and pathogens.

NYCOTE® NYFORM

This next-gen protective conformal coating is capable of adhering to multiple substrates, is stronger than acetate conformal coatings, but easier to remove than epoxy products. Nyform meets qualification and performance of electrical insulating compound for printed wiring assemblies.

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