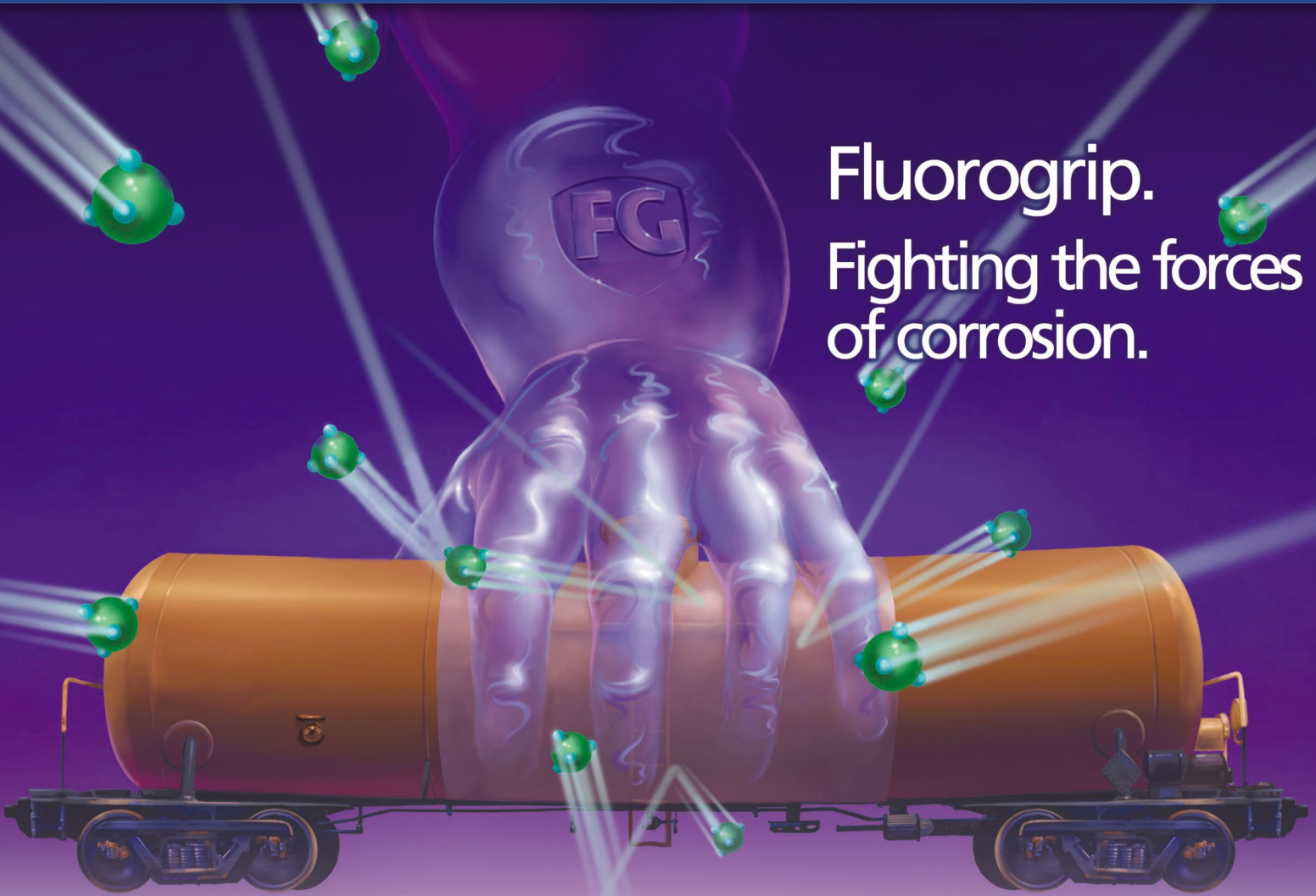


FluoroGrip®
Fluoropolymer Films

Your ultimate surface protector,
with or without conventional coatings.

Fluorogrip.
Fighting the forces
of corrosion.



Fluoropolymer Surface Protection and Paint Replacement Appliqués For Military, Aerospace and Transportation Equipment



Fluoropolymer Surface Protection and Paint Replacement Appliqués For Military, Aerospace and Transportation Equipment

FluoroGrip® fluoropolymer appliqués provide excellent surface protection for a wide variety of uses in aerospace, military and transportation applications. The appliqués offer a superior paint replacement alternative for demanding requirements, delivering excellent chemical resistance, very high tensile strength and flexural modulus.



Easy to install

FluoroGrip products are easily adhered and they conform to the substrate to which they are applied to provide a durable, cost-effective protective barrier.

Ideal for rail cars, aircraft, ships, and more.

Surface protection products help prevent damage caused by fluids, erosion, abrasion, UV degradation and other harsh environments encountered in the transportation industry.

Proven in military land, sea and air applications.

FluoroGrip multifunctional appliqués protect military aircraft and equipment including leading edges of the fuselage, wing flaps and other structures, as well as decals and identification markers.



Lightning strike protection

Advantages

- Superior temperature resistance compared to traditional coatings
- Withstands thermal shock and cycling
- Superior chemical resistance
- Easy to clean, non-stick surface



Splash zone protection

- Reliable in the widest range of environments
- Effective over expanding and contracting substrates, due to superior elongation properties
- Ease of inspection and repair
- Single step application process
- Installed at temperatures as low as 40°F
- Easier and faster clean-up; no spilled coatings
- No VOCs or hazardous solvents



Application on tanker truck

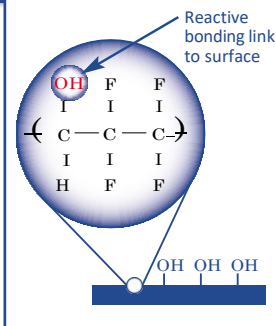
The science of plasma surface treatment for better surface protection.

Integument manufactures FluoroGrip® appliquéés using patented, advanced surface modification science and pressure-sensitive adhesive technologies in our world-class plasma treatment facility.

Our proprietary equipment and processes are custom designed and built for Integument's unique cold gas plasma surface modification - the science that makes it possible to apply adhesives that bond permanently to surfaces of any fluoropolymer film including FEP, PTFE ECTFE, PVDF, PFA, and MFA.

FluoroGrip® materials do not rely upon etching or other forms of physical degradation to promote adhesion. The chemical bond formed between the FluoroGrip® materials and the adhesive is permanent, enabling FluoroGrip® to be used in surface protection applications where no conventional adhesive fluoropolymer sheet or film product can. The bond withstands a variety of stresses including extreme temperature cycling, UV, humidity and a wide range of aggressive chemicals without delaminating from the adhesive.

Molecular View of Activated FluoroGrip® Surfaces



TECHNICAL DATA	ECTFE	FEP
Abrasion Resistance – Taber: ASTM D-1044	0.002	
Tensile Strength @ Break (psi) ASTM D-882	7250	3000
Elongation @ Break (RT) %ASTM D-882	200-300	300
Melt Point (F) ASTM D-3418 (DTA)	465	500
Hardness (Shore D): ASTM D-785	D75	D55
Low Temperature Embrittlement (F)	-150	-400
Electrical Properties		
Dielectric strength ASTM D-149 1 mil thick (v/mil)	5500	6500
Dielectric Constant ASTM D-150 @ 10 ³ Hz	2.5	2.1
@ 10 ⁶ Hz	2.59	N/A
Dissipation Factor ASTM D-150 @ 10 ³ Hz	0.0014	0.0001
@ 10 ⁶ Hz	0.013	N/A
Thermal Properties		
Flammability ANSI/UL-94	VTM-0	VTM-0
Oxygen Index ASTM D-2863-77	N/A	95%
Fire and Smoke Performance ASTM E-906-83	(supplied on request)	(supplied on request)
Chemical Resistance		
2000 hours Salt Fog	Pass	Pass
500 hours SO ₂	Pass	Pass
Corrosion Resistance		

See Note 1

Note 1: Refer to Integument Technologies "General Chemical Resistance Guide" and ECTFE Design Guide – Chemical Resistance."

Chemical Agent Resistant Coating (CARC): Tested and passed necessary requirements.

Adhesive: Appliqué is backed with pressure sensitive acrylic adhesive, with an incorporated environmentally benign corrosion inhibitor.

Colors: Film is currently available in colors matched to Federal Standards is available with sufficient volume orders.. Film is also available colorless/opaque and in custom color schemes.

**Expert service and support from
Integument Technologies, Inc.**

Integument Technologies is committed to the creation of innovative products to anticipate and meet needs of today's dynamic industries. The scientists, engineers and technicians at ITI offer the best combination of materials science, chemistry, and corrosion engineering in the world.

We have the experience, knowledge and expertise to help you choose the FluoroGrip fluoropolymer surface protection or paint replacement that's right for your applications.

- Up front technical support, testing, specifying and engineering
- Accurate technical product recommendations
- Ongoing research and development and experience in military surface protection land, air and sea vehicular applications

For more information on FluoroGrip Fluoropolymer surface protection and paint replacement appliques, call Integument Technologies, Inc. today or visit us on the web at www.integument.com.



Research and design in conjunction with leading universities and government agencies.

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