

# METALPHOTO® DURABILITY CHARACTERISTICS

## for LAMINATED TEFLON and FUSED TEFLON

SPECIFIC CHARACTERISTIC	TEST CONDITION	EFFECT Laminated Teflon® PTFE	EFFECT Fused Teflon® PTFE	EFFECT Fused Teflon® FEP***
Exterior Exposure	Black and silver image exceeds 400 hr. Weatherometer Test GG-P-455b, estimated equivalent to 20 yr. exposure	No effect	No effect	No effect
Abrasion Resistance	Taber Abraser with CS17 wheel, a total of 1000 gm. load, 7000 cycles	Not Recommended Teflon Loss - Image OK	Not Recommended Teflon Loss - Image OK	Not Recommended Teflon Loss - Image OK
Paint Shedding		Excellent	Excellent	We Recommend Testing in Your Application
Temperature Resistance		300°F	500°F	400°F
Salt Spray	5% at 95°F for 700 hrs.	No Corrosion	No Corrosion	No Corrosion
Chemical Resistance				
MIL-S-3136 111 Hydrocarbon Fluid	1 hr. immersion	No Effect**	No Effect	No Effect
MIL-L-5161C-Turbine and jet engine fuel	1 hr. immersion	No Effect**	No Effect	No Effect
JP-4 Fuel	72 hr. immersion	No Effect**	No Effect	No Effect
Kerosene	12 hr. immersion	No Effect**	No Effect	No Effect
Skydrol (Hydraulic Fluid)	24 hr. immersion, at both room temperature and boiling point.	No Effect**	No Effect	No Effect
Methyl Ethyl Ketone (MEK)	24 hr. immersion	No Effect**	No Effect	No Effect
Ethyl Acetate	24 hr. immersion	No Effect**	No Effect	No Effect
Xylol	72 hr. immersion	No Effect**	No Effect	No Effect
Heptane	72 hr. immersion	No Effect**	No Effect	No Effect
Ethyl Alcohol	72 hr. immersion	No Effect	No Effect	No Effect
Ferric Chloride	10% solution, 16 hr. immersion	No Effect	No Effect	No Effect
Ammonium Hydroxide	10% solution, 16 hr. immersion	No Effect	No Effect	No Effect
MIL-P-21563 soap solution	16 hr. immersion	No Effect	No Effect	No Effect
MIL-C-25179 AIN in heptane	25% solution, 1 min. immersion (cleaning solution)	No Effect	No Effect	No Effect
Sulfuric Acid	10% solution, 24 hr. immersion	No Effect	No Effect	No Effect
Phosphoric Acid	1% solution, 12 hr. immersion	No Effect	No Effect	No Effect
Nitric Acid	3% solution, 72 hr. immersion	No Effect	No Effect	No Effect
TSP (Trisodium Phosphate)	1% solution, 40 hr. immersion	No Effect	No Effect	No Effect
Sodium Hydroxide	1% solution, 1 hr. immersion	No Effect*	No Effect*	No Effect*

SPECIFICATION	PUBLICATION	DETAIL	DESCRIPTION
GG-P-455b	Federal Specification	Type I, Grade A or B Class 1 & 2	Photosensitive anodized aluminum impregnated with silver compounds printable on one or two sides - all finishes and thicknesses.
MIL-P-15024D	Military Specification	Type H & G	Totally anodized aluminum with characters integrated into the anodized layer photographically using silver compounds.
MIL-P-19834B	Military Specification	Type I or II, Style III or IV	Metalphoto .003" thick plates with the proper adhesive applied meets or exceeds all of the performance requirements of this spec.
MIL-P-514D	Military Specification	Composition C	Photosensitive aluminum plates, grade and class as specified in federal specification GG-P-455b.
Industrial Commercial Products	Original Equipment Panel Fronts Nameplates	Metalphoto Products	Material shall be Metalphoto. Image (black on silver or silver on black shall be sealed into the anodized layer with photosensitive silver compounds: colors other than black may be imbedded by resist or screen process.

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\*\*Top Surface Only - will react with exposed edge.

\*\*Top Surface Only - exposed adhesive edges may soften or swell.

\*\*\*FEP should not be used in place of PTFE in applications where the label is exposed to high levels of radiation (>0.2 Mrad).

Note: Users must test Metalphoto products in the specific environment anticipated.

Camcode does not warrant performance of its materials in any environment.

**CAMCODE®**

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