

FOILPRINT Metalplaques

are made using the *Metalphoto* process, which is the preferred material for nameplates, control panels and bar codes in applications where service life expectations exceed 20 years for the part. Government & aerospace extensively specify the *Metalphoto* process for demanding applications that require resistance to the effects of weather, abrasion, heat and most chemicals.

The following performance requirements are taken from reference documents, in which the *Metalphoto* process is used and specified, in order to demonstrate the unique durability of the product.



Anodic Layer

The glass-clear, sapphire-hard anodized layer resists chemicals, paint, abrasion, and dirt.

Sealed Image

Black graphics are metallic silver particles that hold up to extreme heat and sunlight exposure.

Aluminum Layer

The rigid aluminum base will not peel, crack, or delaminate.

Characteristic	Result
Abrasion Resistance	No pronounced image loss, degradation, or reduced readability after 7000 cycles of an abrading wheel.
Acid Corrosion	No deterioration or image degradation after 24 hours in 3% nitric acid.
Heat Resistance	No legibility loss or degradation when subjected to 537°C - 1000°F
Salt Spray Corrosion	No deleterious effect after a 720-hour salt spray (fog) test. 2,6 "Very good" corrosion resistance after 113 days seawater exposure.
Accelerated Light and Weather Resistance	No pronounced deterioration of legibility after 400-hour carbon arc weatherometer exposure.
Accelerated Oxygen Aging	No discoloration or fading after 96hour/300 psi/70°C oxygen bomb aging. No black fading when plates are exposed to tincture of iodine.
Stain Resistance	No deleterious effects when tested with alkaline cleaners (MIL-C-87937 or equivalent) for aircraft surfaces.
Cleaning Resistance	No deleterious affect or image fade after I hour at -10°C - 50°F.
Low Temperature Resistance	No impairment of legibility upon exposure at -19.5°C - 67°F.
Organic Solvent Resistance	No softening, staining, or noticeable fade after 24-hour exposure to: JP-4 fuel, Gasoline, Mineral spirits, Methyl ethyl ketone, Turpentine, Turbine & jet fuel, Kerosene, Xylol, Acetone, Toluol, Heptane, Trichlorethylene, MIL- H-5606 hydraulic fluid, and M1L-L-7808 jet engine oil
Fungus Resistance	Visual reading of "0" per ASTM-G21.
Thermal Shock	No deterioration after 3 cycles between -65°C and 125°C.
Moisture Resistance	No deterioration after 10 humidity cycles per MIL-STD-202, method 106.

Performance Characteristics