



THERMOFLAN

equipments & products **Sign**

**Make the right choice !**

# metalphoto®

Photographic aluminium widely used for its extended durability in industrial or challenging environments and sharpness in graphic applications. Processed in yellow safelight conditions, Metalphoto plates are exposed through a film, developed, fixed then sealed. Results are safe and fast.

## Applications :

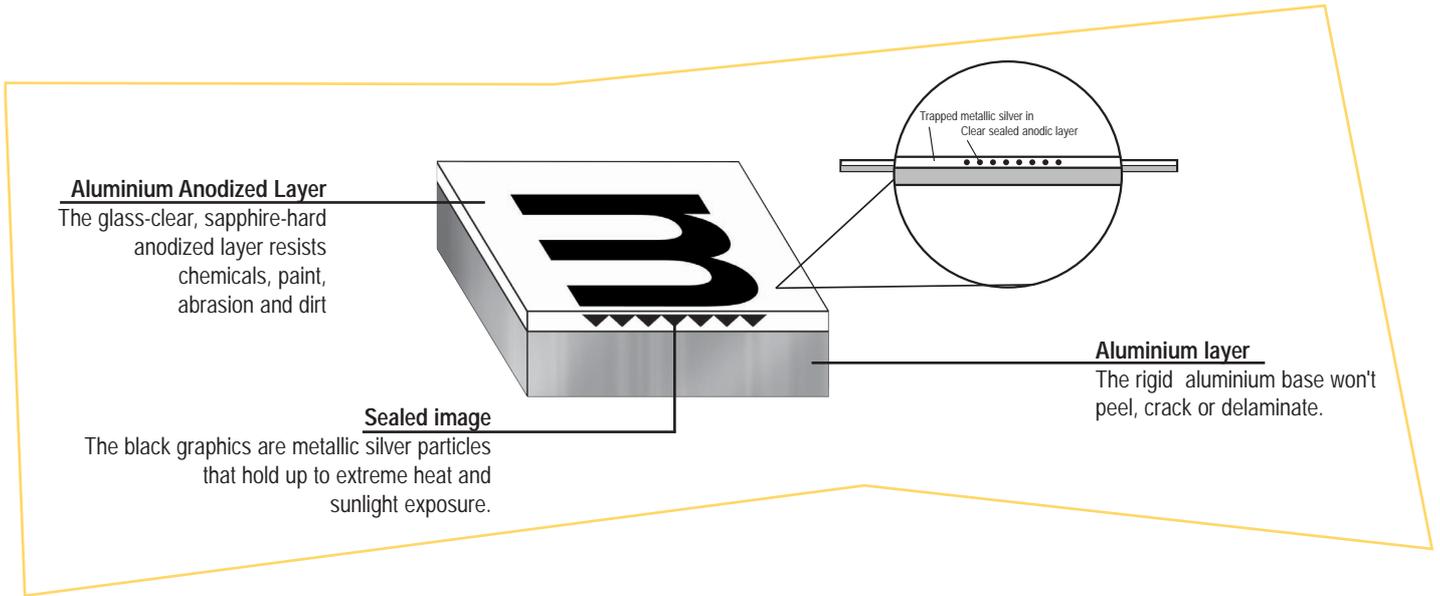
- Identification plates,
- Name plates,
- Panel fronts,
- Awards,
- Labels,
- Signs
- ...



**The Metalphoto® process is the fastest and easiest way to make durable metal panels, nameplates and labels.**

*Metalphoto parts will look as good as new for a lifetime. That's because information is sealed into the anodized layer of the aluminium.*

*In addition, imbedded black graphics are metallic silver particles that resist heat and sunlight.*

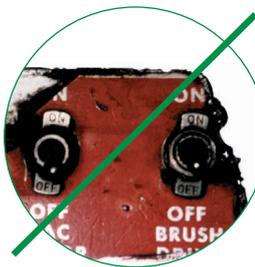


*Over time, your product may be subjected to any or all of the following conditions :  
sunlight, heat, cleaning, handling, abrasion, grime, solvents, fuels, paint, impact, graffiti, salt spray, blowing sand, chemicals, moisture, cold.*

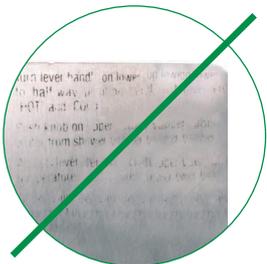
*If you want your parts to last, make the right choice... Metalphoto*



Chemicals can corrode other materials, rendering them unreadable. Most chemicals roll off Metalphoto parts with no effect  
**Make the right choice.**  
metalphoto®



Delaminated, peeled or battered parts can't be clearly read on other materials. Metalphoto parts can't peel or delaminate because the image is embedded within a sapphire-hard anodized layer  
**Make the right choice.**  
metalphoto®



Sunlight and heat can fade graphics on other materials to the point of illegibility. Metalphoto parts won't fade even super-fine graphics withstand heat and ultraviolet extremes.  
**Make the right choice.**  
metalphoto®



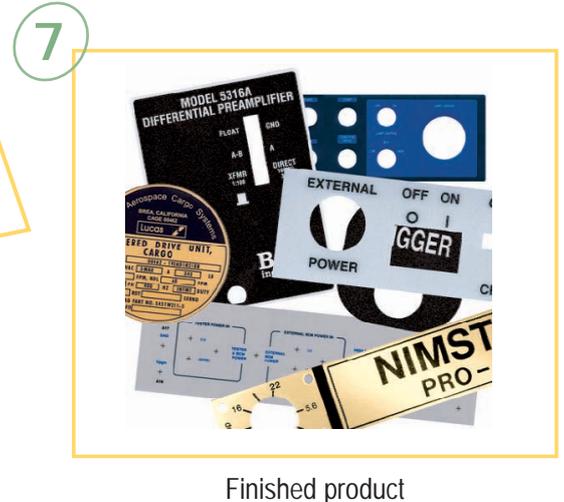
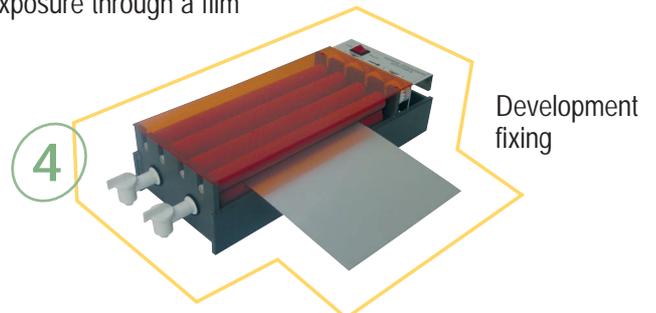
Abrasion can make labels printed on other materials unreadable and unattractive. Metalphoto parts remain readable even in abrasive environments  
**Make the right choice.**  
metalphoto®

*Metalphoto panels, nameplates and labels outlast other parts in challenging environments.*

## Metalphoto parts in minutes *(Noncontractual photographs)*



Metalphoto plate exposure through a film



## Metalphoto features

### DURABLE

Image is permanently embedded in the anodic layer and protected by a sapphire-hard surface making it impervious to acids, fungus, moisture (35 year resistance to corrosion), weathering, temperature extremes (resistance to 400°C) and UV light (20 year resistance to outdoor exposure)

As a result, industry groups recognize Metalphoto as the most durable aluminium parts available.

### FAST

Process directly from production film to imaged plate, no intermediate plates or screens are required.

Effective for one or thousands of custom parts

### SHARP

Anything that can be photographed in line of halftone can be reproduced with total fidelity.

### EASY

Few steps.

Makes perfect parts every time.

### SAFE

Meets the strictest environmental standards anywhere.

Safe for the user and the community.

### PROVEN

Used by thousands of production shops worldwide and supported by 45 years of manufacturing experience : US Army, Motorola, Boeing, Nasa, Aérospatiale, Philips.

### MINIMAL INVESTMENT

Economical, long-lasting equipment.

#### TYPE OF PLATE

##### METALPHOTO GROUP 1

One side anodized aluminium plates producing black and silver images. Background or selective coloring possible.

##### METALPHOTO GROUP 2

Two side anodized aluminium plates producing black and silver images. Background or selective coloring possible

##### METALPHOTO PLUS

One side anodized aluminium plates producing black images on a colored background (silver, copper, yellow, gold, red)

##### POLYCOLOR

One side photosensitized photopolymer coated plates for one or more spaced or butted colors on a silver background

##### SIZES

254 x 305 mm / 305 x 508 mm / 508 x 610 mm / 610 x 1016 mm

##### THICKNESSES

0.08 / 0.13 / 0.2 / 0.3 / 0.5 / 0.8 / 1 / 1.6 / 2.3 et 3.2 mm

##### FINISH

satın / matte / gloss / brushed



METALPHOTO ENVIRONMENTAL PROPERTIES											
Results Key	Test conditions	Abrasion resistance Taber Abraser with CS17 wheel, 1000 gram load for 7000 cycles	Solvent/Fuel resistance Extended immersion in alcohol, kerosene, JP-4 jet fuel, hydraulic fluid, MEK and other organic solvents at room temperature	Temperature resistance		Ultraviolet light resistance 400 hour Weatherometer test GG-P-455b recognized equivalent of 20 years outdoor exposure	Salt spray/Immersion resistance		Chemical resistance		
				Oven tested for one hour			Salt spray testing with a 5% NaCl solution at 90° F for 700 hours equivalent of 35 years outdoor	Immersed plates in sea water at ambient temperature for an extended period of time avoiding galvanic coupling	Acid		Bases
				> 400 °F <= 750 °F	> 750 °F <= 1000 °F				24 hours immersion at room temperature in 3% solutions of nitric acid, Sulfuric acid and ferric chloride	hour immersion at room temperature in 3 solution of Chlorox	24 hour immersion at room temperature in 3% solutions of sodium or ammonium hydroxide
Finished plate characteristics ● Excellent ○ Acceptable ○ Not recommended	Black & aluminium image intensified	●	●	●	●	●	●	●	●	○	○
	Black on Gold * background image intensified	●	●	●	●	○	○	●	○	○	
	Black & aluminium not image intensified	●	●	●	○	○	●	●	○	○	
	Black on Gold * background not image intensified	●	●	●	○	○	○	○	●	○	○
	Additional background or selective colors	●	●	○	○	○	○	●	○	○	

Note : users must test Metalphoto products in the specific environment anticipated, Metalphoto performances are not warranted in any environment.  
\*includes Sunfast and Classic Gold colors.

#### INDUSTRY & GOVERNMENT SPECIFICATIONS :

- Underwriters laboratories / file # MH17767
- Canadian Standards Association / file # 11133-1, class # 7921
- Federal specification GGP-455b, Grade A or B

#### MILITARY SPECIFICATIONS

- Mil-P-15024 F Mil-P-514 D
- Mil-P-19834 B Mil-A-8625E

#### DIN STANDARD TESTING EQUIVALENCE

- DIN 50017 - resistance to corrosion
- DIN 50021 - resistance to salt spray
- DIN 50004 - resistance to Xenon attacks
- DIN 50018 - resistance to industrial environments
- DIN 53387 - resistance to radiation artificial ageing

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S.A.S au capital de 300000 euros  
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