

## Milmar Silver Perm

### PRODUCT DESCRIPTION

**Face Material:** Polyester films, top coated for ink receptivity: **MILMAR T.C. 25 µm** : Bright Silver or Dull Silver

**Adhesive:** Permanent high-performance, acrylic based.

**Liner:** Mercury. Bleached Kraft paper, ca. 160 gr/sqm, two-side polyethylene coated, without breaklines and backprinting.

Backing with excellent dimensional stability.

### TYPICAL USE

Milmar Silver films : luxury labels for household or industrial appliances, audio and video equipment, calculators, nameplates, toys, panels for decorative purposes, luxury packaging for perfumery or jewellery.

### GENERAL REMARK : factors affecting adhesion

Adhesion failure problems can be avoided by :

- Where possible, always test the proposed construction under actual application and end-use conditions because a 100 % multi-purpose adhesive for all substrates does not exist.
- Being familiar with factors which adversely affect adhesion :
  - Labels or stickers should not be applied onto dusty, dirty, oily or oxidized surfaces.
  - Mould release agents on blow-moulded plastic surfaces inhibit adhesion.
  - Adhesion failure may occur on substrates with low surface tension, such as polyethylene or polypropylene. Rubber based adhesives stick better to low energy surfaces than acrylics.
  - Avoid the use of relatively rigid facestocks on highly curved or small diameter surfaces.
  - Do not use pressure-sensitive materials outside the recommended service temperature range, or do not apply below the minimum application temperature.

### PROCESSING

The special topcoating allows printing solvent based by screen printing. For letterpress and offset printing, please contact your ink supplier. We recommend to maintain an unprinted area of 3-4 mm on the edges of the printed decal to avoid edge lifting.

### SHELF LIFE

2 years stored at 50 ± 10 % RH at 15 - 25°C in its original packaging.

### PHYSICAL PROPERTIES (TYPICAL VALUES)

#### Average Values Test Method

Thickness (micron)		
Film + Adhesive	50	ISO 534
Adhesive data, 23°C		
Peel adhesion 180° on glass		
- 20 min. residence (N/25 mm)	11	FTM1
- 24 hour residence (N/25 mm)	14	FTM1
Quick Tack (N)	16	FTM9
Dimensional stability		
Shrinkage (1 week at 70°C applied on Aluminium)	no shrinkage	FTM14
Temperature ranges		
Application (°C)	+10	Minimum
End-use (°C)	-20 to +130	
Toy labelling		
	in compliance with EN 71/3	
Solvent and chemical resistance		
Solvent Resistance	Resistant to most oils, greases, aliphatic solvents, alcohols.	
Petrol Resistance	Resistant to short limited contacts. If extended contact, edge-lifting will occur.	
Chemical Resistance	Resistant to most mild acids, mild alkalis.	

### EXPECTED DURABILITY

The expected vertical outdoor durability of the unprocessed product in central Europe (Zone 1) is up to: 2 years.

This information is based on successful real life experience and artificial aging according to ISO 4892-2. Middle European exposure conditions, vertical exposure. Exposure to severe humidity, ultra-violet light or conditions found in tropical, subtropical or desert regions will cause more rapid deterioration than under conditions existing in "normal" temperate climates.

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