MACscreen

mactac

MACstat 150 (static cling PVC)

Technical Data Sheet

DESCRIPTION

Face stock :
MACstat is a highly plasticized soft flexible PVC film, in either gloss white or gloss clear.
This adhesive-free PVC film clings by itself to glass, smooth or other glossy surfaces.

Caliper : ca. 150 µm ASTM D-645

Liner :
STATURY, a sturdy lightweight board for ease of printing and die-cutting.
This board gives good handling, feeding and printing properties. Excellent printability with customary printing processes.

Weight : ca. 205 gr/sqm ASTM D-645

Laminate weight : 390 gr/sqm ASTM D-645

PHYSICAL AND CHEMICAL CHARACTERISTICS

(TYPICAL VALUES)

Face material data :

Density : Clear : 1.25 g/cm³
White : 1.30 g/cm³

Degree of plasticization :
~ 34 % (Stabilization cadmium-free)

Surface tension : 34 dynes/cm, ± 2

Chemical resistance :
Excellent water resistance, can be wiped clean using water and soft household detergent.
Immersion in most esters, ketones, gasoline etc. is not recommended.

UV resistance : no appreciable yellowing after normal exposure. Good fade resistance.

Toy labelling : in compliance with EN 71/3
(Safety of toys, migration of certain elements 12/1988).

Temperature range :
Min. application temperature : + 5°C
Service temperature range : - 10°C to + 50°C

Shrinkage :
(1 minute after separation from backing paper at 21°C) : ca. – 6mm (MD) / ca. + 1.5mm (CD)

Size tolerances : ± 2 mm, over 100 cm ± 0.3%

Dimensional stability :
Max. 1.5 % (MD) / Max. 0.5 % (CD)

Optical transparency :
Water clear, slight flow-lines and fish-eyes.

Adhesion : 0.15 N/25 mm FTM 1 on clean glass

Shelf life : stored at 50 ± 10 % RH at 15 - 25°C.
6 months for as long as the material is being stored in its original packaging.

Expected durability :
The expected vertical outdoor durability of the unprocessed product in central Europe (Zone 1) is up to:
1 years
Indoor use : 3 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.

PRINTING METHODS

These films are only recommended for screen printing and offset UV. Printability is limited in time.
Always contact your ink supplier for an appropriate ink choice.
During printing, it is important that drying is carefully exercised to ensure removal of printing inks solvents since certain solvents if retained can lead to plastification problems with subsequent application troubles and poor weathering properties.
We recommend to maintain an unprinted area of 3-4 mm on the edges of the printed decal to avoid edge lifting.
For solvent digital printing, we recommend the use of MACtac IMAGin JT 5000 products.

APPLICATIONS AND USES

Primarily for signs which require simple application, easy removability and reuse.
Ideal for temporary window signs and showroom displays, lettering with interchangeable characters, educational games and teaching aids, protection of delicate surfaces.
MACstat should be applied to clean and dry surfaces, free from any contamination.
MACstat is not recommended for applications onto plastics due to plasticizer migration (residues on the substrate or matification).

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.*