



MACscreen[®]

Product data : MACal[®] 9829 P / 9899 P – LONG LIFE PERMANENT

DESCRIPTION

Face stock :

Polymeric stabilized calendered soft vinyl, cadmium free,
~ 80 µm.

Macal[®] 9829 P : Gloss White

Macal[®] 9899 P : Gloss Transparent

Adhesive : Durable Permanent high-performance,
acrylic based.

Liner : Coated Kraft paper, ca. 140 g/m² :
Secury 13 (without breaklines)

Laminate (Film + adhesive) :

Caliper : ca. 120 µm ASTM D 645

PHYSICAL AND CHEMICAL CHARACTERISTICS (TYPICAL VALUES)

Peel adhesion 180° on stainless steel :

30 min. : 0,66 kN/m ASTM D-903

1 week : 1,00 kN/m ASTM D-903

Dimensional stability (applied) : < 0,5 % FTM 14, alu

Face material data :

Tensile strength : 1,17 kN/m DIN 53455

Elongation at break : min. 100 % DIN 53455

Temperature range :

Min. application temperature : + 10° C

Service temperature range : - 40° C to + 90° C

Flammability : Self-extinguishing ISO 3795

Solvent resistance : good properties.

Applied to stainless steel, exposed to : oils, greases,
aliphatic solvents, alcohols.

Petrol resistance : good properties.

Repeated (each 10 min.) petrol spraying.

Chemical resistance : No effect.

Mild acids. Mild alkalis.

Shelf life : stored at 50 ± 10 % RH at 15 - 25° C.

2 years for as long as the material is being stored in its
original packaging.

Durability :

- *Unprinted films* : 7 years (white) 5 years (clear).

Middle European exposure conditions, vertical exposure.

- *Printed films* : satisfactory performance for up to 7 years
can be obtained with some inks and varnishes. However
assurance of ink performances in all cases should be first
obtained from the ink supplier.

These end-use-life estimates are based upon accelerated
ageing studies and outdoor exposure, under conditions
experienced in vertical exposure and in "normal"
temperate climates.

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

Screen printing.

For UV Offset or conventional offset, please contact your
ink supplier.

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.

APPLICATIONS AND USES

MACal 9800 P series is designed for permanent interior
and exterior marking applications which have a long-term
requirement. Good conformability to simple contours and
flat surfaces and ideally suited for vehicle markings,
containers, etc...

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.*
- *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.*