

## MACal® 9800 PRO

### PRODUCT DESCRIPTION

MACal 9800 PRO are premium polymeric stabilized calendered soft vinyl films coated with a durable permanent adhesive giving excellent dimensional stability.

MACal 9800 PRO is designed for trouble-free computer cutting and fast weeding, even for small letters and fine lines.

**Face Material:** Polymeric stabilized calendered vinyl, 66 µm thick, cadmium-free.

**Adhesive:** High quality clear solvent based permanent acrylic adhesive. A white version of this adhesive is used for MACal 9800 PRO SL.

**Liner:** Highly stable 135 gsm white kraft paper with Mactac backprinting.

For white vinyls the liner is coated with a blue silicone coating to improve the contrast with the film colour.

NB : CONTRAST ensures a clear view during the stripping process therefore improving productivity.

### TYPICAL USE

MACal 9800 PRO is designed for long term interior and exterior marking applications (vehicle marking, window graphics, signs...).

MACal 9800 PRO provides ideal conformability over simple contours. MACal 9800 PRO SL are intense, vibrant colours for eye-catching markings.

### PROCESSING

#### Computer cutting

Clean, quick, trouble-free cutting with most plotters. Adjustment of the cutting depth is important: if the cut is too deep this could result in the paper splitting and coming away with the adhesive when the vinyl is transferred to Application Tape.

#### Application

The transfer of the cut vinyl onto the Application Tape should always be performed by removing the liner from the pressure-sensitive material (i.e. with the PVC face downwards onto the working surface) and not by lifting off the Application Tape.

MACal 9800 PRO can be applied with the dry application method on slightly curved surfaces. On flat surfaces the dry or the wet application method is suitable.

### Important remark

All surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination. The compatibility of paints and lacquers should be tested by the end-user, prior to use.

### Edge sealing

Where exposure to chemicals and solvent spillage is likely to occur, edge sealing of decals with a varnish will prevent edge lift. Correct varnishing of decals gives greater protection, and extends the use-life against prolonged effects of weathering, abrasion and other effects such as frequent cleanings.

### SHELF LIFE

SHELF LIFE 2 years when stored at 15 to 25°C and ± 50 % relative humidity.

### PHYSICAL PROPERTIES (TYPICAL VALUES)

#### Average Values Test Method

Thickness (µm)			
Film + Adhesive	90		ISO 534
	100 for 9800SL		ISO 534
Face Material data, 23°C (N/15mm)			
Tensile Strength	>24		DIN ISO527-3
Elongation at Break (%)	>150		DIN ISO527-3
Adhesive data, 23°C (N/25 mm)			
Peel adhesion 180° on stainless steel			
	Brushed	Mirror	
- 20 min. residence	16	11	FTM1
- 24 hour residence	18		FTM1
- 1 week residence	20	13	FTM1

<b>Dimensional stability</b>		
Shrinkage (1 week at 70°C applied on Aluminium)	< 0.2mm < 0.5mm for 9800 SL	FTM14
<b>Temperature ranges</b>		
Application (°C)	+8°C to +40°C	
End-use (°C)	-40°C to +90°C	
<b>Flammability</b>		
Sample mounted on aluminium	Self-extinguishing	ISO 3795
<b>Solvent and chemical resistance</b>		
Resistance to most:	oils and grease, fuel, aliphatic solvents, weak acids, salts and alkalis	

### EXPECTED DURABILITY

Central Europe - Zone 1

Black & white	10 years	ISO 4892-2
Colours	8 years	ISO 4892-2
Metallics	5 years	ISO 4892-2

Note : Exposure to severe temperatures and ultraviolet light, as well as conditions in southern European countries, and also in tropical, sub-tropical or desert regions, will cause a more rapid deterioration. This also applies to polluted areas, high altitude, horizontal and south-facing exposure.

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