



# PERFORMANCE GUIDE

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Approved by J. S.

## **PRODUCT: MACal<sup>®</sup> 9800Pro & ProSL High Performance Vinyl Series**

### **PRODUCT DESCRIPTION:**

Exclusive MACTac films designed for high performance permanent marking applications, which require 7 – 8 years outdoor life. The face is a 2.6-mil cadmium-free vinyl, which are durable yet highly flexible for conformability over difficult surfaces and has an **enhanced high gloss** finish. The product is coated with a high performance, permanent, clear acrylic adhesive for 9800Pro and a durable white acrylic adhesive for 9800ProSL. These products utilize an 83# white kraft liner for stability and layflat with blue backprinting. The products exhibit excellent dimensional stability and are designed for superior cutting and weed ability. MACTac offers a wide variety of standard high gloss colors with MACal<sup>®</sup> 9800Pro, and ultra bright, luminous colors with MACal<sup>®</sup> 9800ProSL. These films are outstanding choices for fleet marking, equipment identification, container decals, window graphics, logos, signs, etc.

<b><u>PHYSICAL PROPERTIES:</u></b>	<b><u>TYPICAL VALUES*</u></b>	<b><u>TEST METHOD</u></b>
<b>Thickness, inches (mm)</b>		ASTM D-645
Film plus adhesive 9800Pro	0.0037 (0.095)	
Film plus adhesive 9800SL	0.0039 (0.10)	
<b>Peel Adhesion, lb./in. (N/25 mm)</b>		ASTM D-903
180° on Stainless Steel - 20 min.	4.0 (16)	
- 24 hours	4.1 (18)	
- 1 wk.	4.6 (20)	
<b>Face Material Data, 68°F (20°C)</b>		
Tensile strength lb./in. (N/15mm)	>9.8 (27)	DIN 53455
Elongation % at break	>150%	
<b>Dimensional Stability (shrinkage), %</b>		FTM- 14
48 hours @ 158°F (70°C)	<0.1	10" x10" Sample
	<0.4% - 9800SL	mounted to aluminum
<b>Temperature Ranges</b>		
Application:	45° to 104°F (8° to 40°C)	
End Use:	-40° to 194°F (-40° to 90°C)	
<b>Flammability</b>	Self-extinguishing	ISO 3795
Sample mounted on aluminum		

### **DURABILITY:**

The durability of these products is; White and black - 8 years outdoor, all other colors - 7 years and metallic's - 5 years outdoors. This use-life estimate is based upon accelerated age studies based on vertical applications under "normal" temperate climates. Please note that exposure to severe temperatures, ultra-violet light and also tropical, sub-tropical or desert regions will cause more rapid deterioration. This also applies to polluted areas, high altitude and south facing exposure.

## **SHELF LIFE:**

Two years when stored at 60°F - 75°F (15°C - 25°C) and 50% relative humidity.

## **PROCESSING:**

- 1) Application of MACal 8300Pro is made easier if **MACTac** pre-spacing tape is used. Where exposures to chemical and solvent spills are likely to occur, edge sealing of decals with varnish or clear coat will prevent edge lift. Correct varnishing of decals gives greater protection and longer end-use life against any prolonged effect of weathering, abrasion or other corrosive effects such as frequent cleaning.
- 2) The transfer of the cut vinyl should be performed by removing the liner from the pressure sensitive material, not by lifting the application tape and the graphic off the liner.
- 3) Adjustment of cutter depth is important: if the cut is too deep this could result in paper liner splitting.
- 4) The compatibility of paints and lacquers should be tested by the end user, prior to use.

- 1) **The user is responsible for determining the product's suitability, including adhesion and if needed, removal characteristics when used in applications other than listed specifically in this Performance Guide.**
- 2) **If there are any questions about applications, please contact your MACTac sales representative to discuss your requirements for recommendations.**
- 3) **If this is a printed Performance Guide it is an uncontrolled document. Please check the MACTac website for the latest, most up-to-date version.**

*\* Values given are typical and are not necessarily for use in specification.*

**CALL 1-800-401-5005 for additional product information**

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