

MACal® 8199 – REM HIGH GRADE

PRODUCT DESCRIPTION

Soft calendered PVC films, ~ 100 µm, cadmium-free, dull or gloss finish.

Available colors: Gloss Clear (Macal® 8199)

This film serie is provided with a removable adhesive especially formulated to guarantee a perfect transparency even in case of presence of moisture on the substrate.

Face Material: Monomeric PVC films 100 micron

Adhesive: Removable high-performance, acrylic solvent based

Liner: Coated Kraft paper, 140 g/m² available in plain or with breaklines

TYPICAL USE

Stickers for advertising and promotional campaigns, emblems and printed labels for in- and outdoor use.

NB : wet method for the application of large printed decals is not recommended.

PROCESSING

Screen printing / UV Offset. For 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. For solvent digital printing, we recommend the use of MACTac IMAGin JT 5000 products.

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.

REMOVABILITY

Up to one year, after application, on many surfaces.
NB : The removability of MACal 8129 and 8199 coated with the High Grade Removable adhesive is borderline (adhesive residue or increase in adhesion onto the substrate with time) on the following substrates: acrylic glass, polystyrene, nitrocellulose painted surfaces and soft PVC.

SHELF LIFE

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

Stored at 50 ± 10 % RH at 15 - 25°C.

PHYSICAL PROPERTIES (TYPICAL VALUES)

Average Values Test Method

Thickness (micron)		
Film + Adhesive	105	ISO 534
Adhesive data, 23°C (N/25 mm)		
Peel adhesion 180° on glass		
- 20 min. residence	3	
- 24 hour residence	3	FTM1
Quick Tack (N)	5	FTM 9 on glass
Resistance to shear (Hours)	>350	FTM 8 on glass
Dimensional stability		
Shrinkage (1 week at 70°C applied on Aluminium)	Max 0,3 mm	FTM14
Temperature ranges		
Application (°C)	+5	Minimum
End-use (°C)	-40 to +70	
Flammability		
Sample mounted on aluminium	Self-extinguishing	ISO 3795
Solvent and chemical resistance		

Solvent resistance	Resistance 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.

Purchaser for any indirect, incidental or consequential loss, damage or injury, including without limitation, loss of anticipated profits, goodwill, reputation, or losses or expenses resulting from third party claims.

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.

DISCLAIMER

For more information on the durability and exposure please visit the "Mactac Technical Bulletin TB 7.5 Outdoor Durability of Mactac Graphics - Self-adhesive films" on the [www.https://www.mactacgraphics.eu](https://www.mactacgraphics.eu) website.

Avery Dennison warrants that its Products meet its specifications. Avery Dennison gives no other express or implied guarantees or warranties with respect to the Products, including, but not limited to, any implied warranties of merchantability, fitness for any particular use and/or non infringement. All Avery Dennison products are sold with the understanding that the purchaser has independently determined the suitability of such products for its purposes. The period of warranty is one (1) year from the date of shipment unless expressly provided otherwise in the product data sheet. All Avery Dennison's products are sold subject to Avery Dennison's general terms and conditions of sale, see <http://terms.europe.averydennison.com>. Avery Dennison's aggregate liability to Purchaser, whether for negligence, breach of contract, misrepresentation or otherwise, shall in no circumstances exceed the price of the defective, non-conforming, damaged or undelivered Products which give rise to such liability as determined by net price invoices to Purchaser in respect of any occurrence or series of occurrences. In no circumstances shall Avery Dennison be liable to

Contact

Email: mactac.europe@mactac.eu

Website: www.mactacgraphics.eu

