

Specialities: ProtecSun

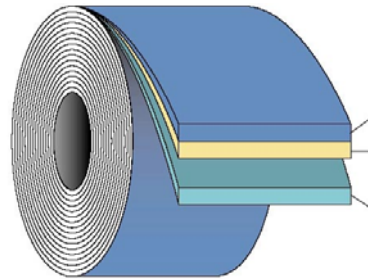
GENERAL INTRODUCTION

Specialities

-is a range of high technology self-adhesive products, developed for specific industrial applications, particularly in the medical, optical or security fields, etc.

ProtecSun

- is a Solar Protective film consisting of **permanent heat rejecting PU/PVC** complex which generates a dramatic reduction of the incoming solar heat by continuously reflecting it away. This layer is protected by a casting sheet which can be removed before or after the application
- is coated with a very cohesive and extremely durable. solvent based pure acrylic adhesive
- can be applied to all polycarbonate, GRP and plastic substrates.



IR rejecting complex PU/PVC (Pink appearance)

Solvent Based Pure Acrylic adhesive

Clear PET film

PRODUCT DESCRIPTION

SOLAR PROPERTIES

	film only (When non applied)	laminated to the external of a 4mm clear glass.
Visible light transmitted	54.58 %	45.99 %
Visible light reflected	38.62 %	28.12 %
Visible light absorbed	6.8%	25.89 %
Ultra violet block	99.78	99.78
Total solar energy reflected	51.85 %	48.47 %
Total solar energy transmitted	35.94 %	34.70 %
Total solar energy absorbed	12.21 %	16.83 %
Total solar energy rejected (TSER)		64.22 %

Visible light transmitted, reflected or absorbed : the percentage of total visible light (380-780 nanometers) to be passed, reflected or absorbed.

Ultra violet block : the percentage of ultra violet radiation (240-380 nanometers) to be passed.

Total solar energy transmitted, reflected or absorbed : the percentage of total energy to be passed, reflected or absorbed.

Shading coefficient : the ratio of solar heat gain through a glazing system to the solar heat gain under the same conditions for clear unshaded glazing (87%). It defines the sun control capability of the glazing system (of the film or the shading).

There might be light variations in the deepness or uniformity of the PROTECSUN colour (light lines or marble effect). This is inherent to some component coating properties and is considered as meeting MACTAC quality standards since it does not affect the solar protection properties of the product. Should you have any doubt about the appearance of the ProtecSun, please contact

REMARK

RESISTANCE**MACtac BEFORE applying it.**

Resistant to water and all usual detergents and alcohol.

ProtecSun is very sensitive when exposed to agents of pollution such as metallic ions (Pb, Fe). It is therefore recommended to gently clean the film once or twice a year, when applied outside .

1 year when stored at 15 to 25°C and ± 50 % relative humidity.

SHELF LIFE**ADHESIVE DATA**

	TYPICAL VALUES (*)	TEST METHOD
Peel 180° on glass (N/25 mm)		
- after 20 minutes	15	FTM 1
- after 24 hours	20	
Quick tack on glass (N/25mm)	14	FTM 9
Shear on glass (hours) 1kg – 25 mm x 25 mm	>2000	FTM 8
Thickness (µ)	115	ISO 534
Dimensional stability: shrinkage (%) (48 hours at +70°C)	< 0.5	ISO 534
Minimum application temperature	0°C to + 40°C	
End-use temperature range	- 30°C to + 100°C	
	<i>For temperatures outside those quoted above, please consult with MACtac.</i>	
RELEASE LINER	Clear PET 36 µ	ISO 536
THICKNESS (Film + Adhesive)	180 µ	ISO 534

(*) Values given are typical and are not necessarily for use in specifications.

WARRANTY: As solar control film age, it is subject to typical ageing phenomena including, but not limited to, UV radiation, pollution and variable temperature changes which will result in some loss of gloss, slight fading, small darker spots and a small amount of cracking. This is to be expected as normal consequences of weathering and are not warranted.

The **ProtecSun** professionally applied carries a **4 years manufacturer’s warranty when applied outside**. Please to record your warranty request , fill in and return the official MACtac product warranty. This above warranted life is based on use in central Europe. Areas with greater weather extremes such as south Europe, but also tropical, sub-tropical or desert region cannot be expected to have the same durability. This also applies to areas with high pollution levels, south facing exposure and roof slope below 20°. For specific durability per geographical area refer to the ““MACtac Global Warranty Zone System”.
Removability:MACtac laboratory has tested the removability of ProtecSun from PC, PMMA and stainless steel panels. After 6500 hours of artificial ageing (method ISO 4892-2), Mactac Laboratory has removed successfully the film from the above listed substrates (without any damage). From that lab test, MACTAC strongly believe that customers should be able to remove ProtecSun without damage during the warranty period. It might however be necessary to use a heat gun. After the warranty period, It is strongly advised to check regularly its removability because the film may become highly breakable and therefore be very difficult to remove without damaging the substrates.

IMPORTANT NOTICE

All MACtac products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects. Published information concerning MACtac products are based upon research which the Company believes to be reliable but such information do not constitute a warranty. Because of the variety of possible uses for MACtac products and the continuing development of new uses, the purchaser should carefully consider the fitness and performance of the product for each intended use and the purchaser assumes all risks in connection with Such use. Seller shall not be liable for damages in excess of the purchase price of the product or for incidental or consequential damages. All specifications are subject to change without prior notice.