

## Mactac TF Series

### PRODUCT DESCRIPTION

Mactac TF series has been developed especially for fleet wrapping and vehicle customisation.

The series consist of vinyl products with different face materials, coated with micro-structured acrylic adhesive.

**Face Material: TF 700 BF Sublime:** 85µm gloss. Matt and metallic polymeric stabilized calendered vinyl, cadmium-free.

**TF Carbon BF:** 130µm polymeric stabilized calendered vinyl, cadmium-free (thickness excluding embossing structure).

**Adhesive:** Repositionable clear solvent based acrylic adhesive.

**Liner: TF 700 BF Sublime and Carbon BF:** Highly stable 145 gsm white micro-embossed PE coated paper.

### TYPICAL USE

TF Series is designed for Vehicle & Boat Hulls Wrapping (above water line), applying the product on painted metal.

The main characteristic of this series is the ease of application, thanks to the Micro-structured adhesive.

### PROCESSING

#### Clean and degrease the substrate

All surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination. Use soapy water to remove the dust and degrease with Mactac Cleaner. Application of the product is recommended only on painted metal surfaces.

#### Application

##### On flat or slightly curved surfaces

Apply TF series with the dry application method.

##### On convex areas

Heat the film with a heat gun before conforming it over the convex area.

##### On corrugated or concave areas

If the film is stretched into a corrugation, it may result in application failure after few weeks. It is, therefore, recommended to cut the film and to apply it in the corrugation without tension.

##### Application on boat

We recommend sealing the edges using Mactac Sealer (Product Code: BP2540001).

### Removability

Once heated, TF series is very easy to remove, leaving almost no adhesive residue on car body. Some adhesive residue may be expected on gel coat boat hulls after film removal. Eventual adhesive residues can be removed with Mactac Remover (Product Code: BO7710001). Compatibility with paints and lacquers should be tested by the end-user, prior to use.

Due to the finish and manufacturing process of TF series, variances in colour can be visible when the material is oriented in different directions. When utilizing TF series, always keep the application direction of the film consistent with the orientation of the film when cut from the roll and applied to the vehicle.

Some slight colour shift may occur between rolls or lots, therefore, minimizing the mixing of rolls/lots on a specific vehicle is recommended.

When applying TF Carbon BF, do not overheat or over stretch the film, otherwise the structure appearance could be damaged.

Also, TF Carbon BF are sensitive to scratches and should be handled with care.

### SHELF LIFE

when stored at 15-25°C and ± 50 % relative humidity:

TF 700 BF Sublime	2 years
TF Carbon BF	1 year
TF 738-66 & TF 778-06	9 months

### PHYSICAL PROPERTIES (TYPICAL VALUES)

#### Average Values Test Method

Face Material data, 23°C		
Tensile Strength	>30 MPa	DIN ISO 527-3
Elongation at Break (%)	150%	DIN ISO 527-3
Adhesive data, 23°C (N/25 mm)		
Peel adhesion 180° on stainless steel		
- 20 min. residence	15	FTM1
- 24 hour residence	17	FTM1
Dimensional stability		
	Max. 0.5 mm	FTM14

Shrinkage (1 week at 70°C applied on Aluminium)		
<b>Temperature ranges</b>		
Minimum application temperature	+ 10°C to + 40°C	
Service temperature range of use	- 40°C to + 90°C	

## EXPECTED DURABILITY

<b>TF 700 BF Sublime</b>			
<b>Vertical Durability</b>			
	Zone 1	Zone 2	Zone 3
White & Black	8 years	5 years	3 years
Colours*	6 years	4 years	2 years
Metallics	4 years	2 years	1 year
<b>Horizontal Durability</b>			
White & Black	4 years	3 years	6 months
Colours*	3 years	2 years	6 months
Metallics	2 years	1 year	6 months

\*Note: Despite being solid colours, TF 709-46 Banana yellow (EB4680001) and TF 749-54 Green yellow (EB4890001) have same durability of metallics

<b>TF Carbon BF</b>			
<b>Vertical Durability</b>			
	Zone 1	Zone 2	Zone 3
Black	5 years	4 years	2.5 years
<b>Horizontal Durability</b>			
Black	3 years	2 years	Not recommended

This information is based on artificial aging according to modified ISO 4892-3.

Exterior boat application with Mactac Sealer: above data reduced by 30%

For more details about durability and zone classification, please refer to TB 7.5 "Outdoor Durability of Mactac Graphics - Self-adhesive films"

Exposure to severe temperatures, ultraviolet light, and/or conditions in Southern European countries, tropical, subtropical or desert regions will cause more rapid deterioration. This also applies to polluted areas, high altitude and south-facing exposure.

## 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.mactacgraphics.eu](http://www.mactacgraphics.eu) website.

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