



# **TuningFilm Brushed BF**

Technical Data Sheet

#### PRODUCT DESCRIPTION

TuningFilm Brushed BF are 140µm embossed polymeric vinyl films coated with a permanent micro-structured acrylic adhesive.

# **CONSTRUCTION**

#### Face material:

 $140\mu m$  polymeric stabilized calend. vinyl, cadmium-free.

# Adhesive :

High tack micro-structured solvent based acrylic adhesive.

#### Liner:

Highly stable 145 gsm micro-embossed PE coated paper.

#### TYPICAL USES

TuningFilm Brushed BF are designed for partial or full Vehicle and Boat Hulls wrapping (above water line).

They can also be used for various furniture's & interior decorations.

## EXPECTED DURABILITY

Expected durability of the unprocessed product is up to:

Interior decoration: 8 years

Exterior application:

Vertical exposure	Zone 1	Zone 2	Zone 3
Black	5 years	4 years	2.5 years
Titanium	5 years	4 years	2.5 years
Graphite	5 years	4 years	2.5 years
Steel	4 years	3 years	2 years
Aluminium	2.5 years	2 years	1.5 years

Horizontal exposure	Zone 1	Zone 2	Zone 3
Black	3 years	2 years	Not Recom
Titanium	3 years	2 years	Not Recom
Graphite	3 years	2 years	Not Recom
Steel	2.5 years	2 years	Not Recom
Aluminium	1.5 years	1 year	Not Recom

This information is based on successful real life experience and artificial aging according to ISO4892-3.

Exterior boat application: above data reduced by 30%

**Zone 1:** North, West, Central & Eastern Europe, North America (excl. : USA desert's - zone 3)

**Zone 2:** South Europe, Central & South America, Asia Pacific, Australian South coastal area (from Perth to Brisbane), New Zealand

**Zone 3:** Greater Middle East, Africa, Australian Desert areas & North of Perth-Brisbane coastal area, USA (Arizona, California, Florida, Nevada, New Mexico, Texas, Utah), Mexico

### SHELF LIFE

1 year stored at 15 to 25°C and  $\pm$  50 % relative humidity.

## **PHYSICAL PROPERTIES** (Typical values)

**Thickness** (mm) (Film + adhesive) ISO 543

0.180

Face Material Data, 23°C DIN 53455-5

Tensile strength :> 40 N/15mm

Elongation at break :> 150 %

Adhesive Data, 23°C FTM 1

Peel adhesion  $180^{\circ}$  on stainless steel (N/25mm)

20 min. residence: 1224 hour residence: 151 week residence: 16

**Dimensional stability** FTM 14

Shrinkage (48 hours at  $70^{\circ}$ C): < 0.3 %

(25 cm x 25 cm, sample mounted on aluminium).

# **Temperature ranges:**

Application :  $+15^{\circ}$ C to  $+40^{\circ}$ C End-use :  $-40^{\circ}$ C to  $+90^{\circ}$ C

**Flammability** ISO 3795 Sample mounted on aluminium: self-extinguishing.

#### Solvent and chemical resistance

Resistant to most oils and grease, fuel, aliphatic solvents, weak acids, salts and alkalis.

## **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 dust and degrease with isopropylic alcohol.

### **Application**

## on flat or slightly curved surfaces

Apply directly 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 pop-out after a few weeks.

It is, therefore, recommended <u>to cut</u> the film and to apply it in the corrugation without tension.

# on rivets

Apply the film over the rivet with high pressure and heat it with a heat gun (air temperature over 500°C).

The film may lift slightly after few weeks.

# Application on boat

We recommend edge sealing.

### Removability

Once heated, TF Brushed BF are easy to remove. Eventual adhesive residues can be removed thanks to isopropylic alcohol. Removability is warranted only on original manufacturer coating.

## **Important remarks**

The compatibility of paints and lacquers should be tested by the end-user, prior to use.

Don't over heat or over stretch TF Brushed BF, otherwise the structure appearance could be damaged.

TF Brushed BF are sensitive to scratches and should be handled with care.





## 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 is based upon research which the Company believes to be

reliable although such information does not constitute a warranty.

Because of the variety of uses of MACtac products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use. The seller shall not be liable for damages in excess of the purchase price of the product nor for incidental or consequential damages.

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