



# **MASS SERIES PLUS PAINT PROTECTION FILM**

## **Technical Data Sheet**

MASS SERIES PPF is a designed top coating which improves contaminant resistance as general PPF such as watermarks, insects, bird droppings, road oils, exhaust smoke and pollution caused by yellowing and gloss out on surface. With its excellent shock-proofing properties it protects vehicle paint chipping from scratches, car wash brushes, self-healing by heat against tiny scratches.

### **TOP COATING SURFACE PROPERTIES :**

- **Ultra Glossy %93 Nano ceramic**
- **Hydrophobic %100**
- **healing by heat**
- **HD clear TPU**
- **tensile elongation 450 %**
- **Non-yellowing**

### **FILM MATERIAL :**

This film is a polycaprolactone based, aliphatic TPU film (Lubrizol). It is a low gel, non-yellowing, UV resistant film, and is used in a wide range of outdoor exposed vehicle protect application.

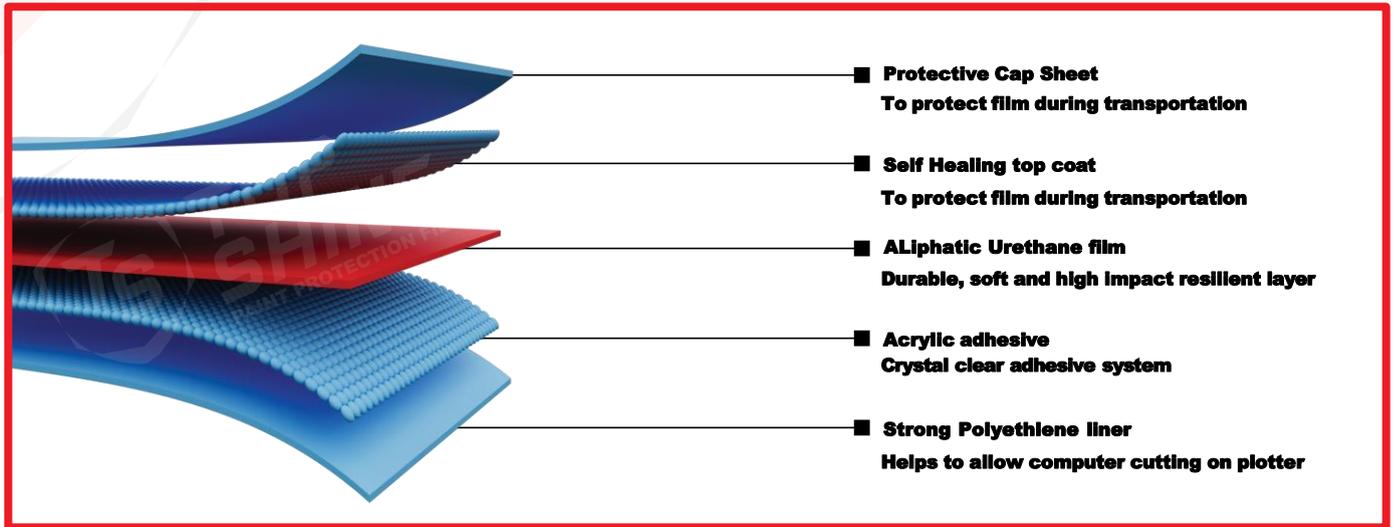
### **ADHESIVE PROPERTIES**

- Easy Removable.
  - Repositionable high-performance acrylic (Ashland Adhesives)
  - Non-yellowing.
  - Top shine protection warrant their range films for a (compliant with the geographical zone) The warranty period varies according to the film and the geographical zone.
- Follow your zone at website/ warranty guide

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All statements, technical data sheets and recommendations published by TOPSHINE® are based on test results which have been relied upon to be reliable and to respect the tolerances of the equipment used to determine these specific values.  
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## Top shine PPF Construction :-



NO	TEST ITEM	TEST METHOD & VALUE
1	Roll Size	1.52m*15m
2	Appearance Glossy	Transparent
3	Warranty	Follow your warranty zone conditions
4	Substrate Material	TPU (Lubrizol)
5	Hydrophobicity	Super hydrophobic
6	Structure	5 layers
7	Outer protective layer PET	(2.0mil)
8	Functional coating	(0.5mil)
9	TPU base layer	(5.5mil)
10	Glue Thickness	(1.5mil)
11	Translucent release layer PET	(3.0 mil)
12	Max Apply Temperature	240 F(116°C)
13	Feature	healing Room temperature
14	Gloss Value	> 93 GU at 60° angle
15	Elongation at Break	450 % (D412)
16	Transmittance	>93.5%
17	Tensile Strength	5000psi (D-412)
18	Outdoor Weathering	No change (6500W Xenon Arc, Irradiance 0.51 W/m2(340 nm),65°F, Relative Humidity 50% 1000hours
19	SAE J400 gravel test	Not affected
20	Soapy water soaking test	Not affected
21	Thermal aging test-40°C70°C	Not affected
22	Boiling water soaking test	Not affected
23	QUV accelerated aging test	Not affected



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**Shelf life: TOPSHINE recommends using MASS SERIES PLUS within one year from date of purchase. Optimum storage conditions for MASS SERIES PLUS are 40°F (4°C) to 90°F (32°C), and 40% to 60% relative humidity.**