

XPEL Protection Film - STANDARD

High Performance Ultra-Clear Topcoated Aliphatic Polyurethane Film

Technical Data Sheet – Dec. 2007



General Description:

XPEL Protection Film - STANDARD is a patent pending high performance self adhesive top-coated aliphatic polyurethane film designed to protect automotive paint, and other surfaces, from harmful effects of stone chips and abrasion. It has exceptional elongation properties for ease of application and this feature allows for single piece installations. XPEL Protection Film - STANDARD is non-yellowing and offers environmental resistance as well as super gloss retention and superior clarity. The film is designed to provide optimum protection while ensuring a no film look once applied to the vehicle. XPEL Protection Film - STANDARD is coated with ultra clear high performance acrylic adhesive which has excellent adhesion on a broad range of surfaces.

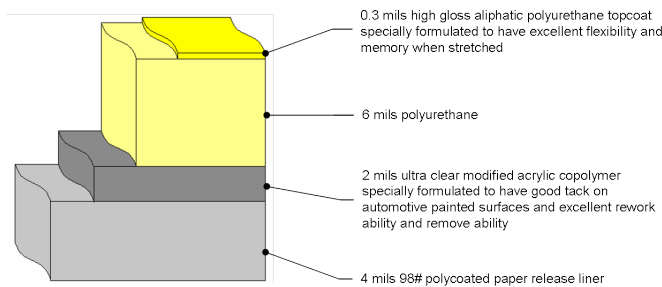
Typical Applications:

Clear gloss polyurethane for stone chip protection, high wear and abrasion

Typical Industry Sectors:

Automotive, motorcycle, RV, powersports, bicycle, aircraft and most modes of transportation

Film Construction:



GENERAL CHARACTERISTICS

Properties	Typical Values	Unit of Measure	Test Method
Physical Topcoat Film Adhesive Liner	0.3 6 2 4	mil ± 5%	
Peel Adhesion Initial peel Normal State After Heat Age After Water Immersion After accelerated weathering	5.6 N/cm 7.53 N/cm 17.6 N/cm 10.2 N/cm 14.6 N/cm	1 hr @ RT 7 days @ RT 16 days @ 80°C 400 hr 40°C 1000 hr	TSM7505G
Gloss	>75 %	20 Degree	BS EN ISO 2813
Ageing Test (appearance) Heat Age Water Immersion Post Xenon weathering Outdoor exposure Boiling water resistance	Pass-No Detrimental Effect Pass-No Detrimental Effect Pass-No Detrimental Effect Pass-No Detrimental Effect Pass-No Detrimental Effect	16 days @ 80°C 400 hr 40°C 1000 hr (41 days) FL exposure-1 yr 5 min in boiling water	TSM7505G
Stone Chip Resistance - Gravelometer	Pass-No Detrimental Effect	Chipping ratings per SAE	ASTMD3170
Mechanical Ultimate Strength @ Break Modulus Tensile Elongation @ Break	66.4 MPa 59.1 MPa 435.2%	Test rate: 1.0 mm/min	ASTMD638-95
Solvent Testing Water & Soap Spotting Acid Spotting Salt Spray Resistance Gasoline	No Detrimental Effect No Detrimental Effect No Detrimental Effect No Detrimental Effect	Immerse for 30 min check in 24 hrs. for change	

Shelf Life:

XPEL recommends XPEL Protection Film - STANDARD be stored at 50°F-90°F, and 40%-60% RH. Film should be used within one year of purchase.

Installation:

XPEL Protection Film - STANDARD is designed to be used on any fully cured OEM paint surface. Surfaces that have been repainted are only suitable for installation of the film if the surface was repainted according to recommendations as set by the OEM. XPEL maintains a complete set of detailed installation instructions, which may viewed at www.xpel.com. Generally, a wet application of the product is recommended.

Warranty:

XPEL Technologies Corp. warrants XPEL Protection Film - STANDARD to be free of any manufacturing or workmanship defects for seven (7) years from the date of purchase. The warranty does not cover damage to XPEL Protection Film - STANDARD caused by erroneous application, accidents or collisions, intentional misuse or ordinary wear, nor damage, dents or chips to the protected surface or film caused by impact of rocks or any other debris. XPEL will replace any film that does not meet this warranty. The replacement of damaged film is the exclusive remedy; liability does not extend to any other damages, incidental, consequential or otherwise.

Notice:

The representations of performance and suitability for use contained in this Technical Data Sheet are meant only as a guide. Since only the user is aware of the specific conditions in which the product is to be used, it is the user's responsibility to determine whether the product is suitable for that intended use.



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