

XPEL Protection Film - ULTIMATE

High Performance Ultra-Clear Clear-Coated Aliphatic Polyurethane Film

Technical Data Sheet – February 2011



General Description:

XPEL Protection Film - ULTIMATE is a patent pending high performance self adhesive clear-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 - ULTIMATE is a very low surface energy film designed to resist staining and offers superior environmental resistance and gloss retention. The clear coat employs special elastomeric polymers that allow scratches in the surface to “heal” over time, eliminating the need for frequent polishing to maintain a just installed appearance. XPEL Protection Film - ULTIMATE is coated with ultra clear high performance acrylic adhesive which has excellent adhesion on a broad range of surfaces, while resisting disturbances during installation.

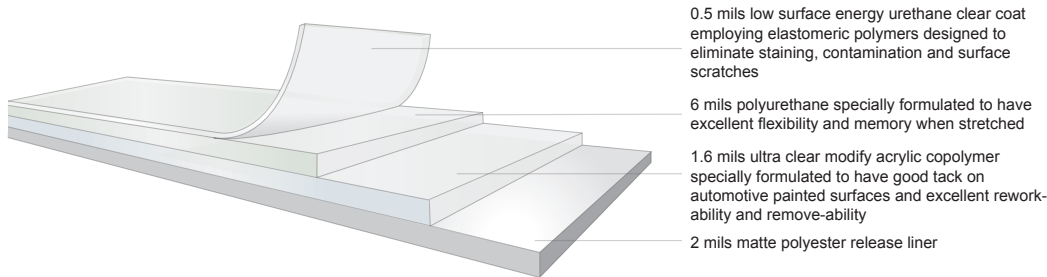
Typical Applications:

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	0.5 6 1.6 2.0	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	>96 %	20 Degree	BS EN ISO 2813
Aging 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	64.9 MPa 57.3 MPa 310.5%	Test rate: 1.0 mm/min	ASTMD638-95
Solvent Testing Water & Soap Spotting Acid Spotting Gasoline Lacquer Thinner Enamel Reducer Acetone	No Detrimental Effect No Detrimental Effect 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 - ULTIMATE be stored at 50°F-90°F, and 40%-60% RH. Film should be used within one year of purchase.

Installation:

XPEL Protection Film - ULTIMATE 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 - ULTIMATE 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 - ULTIMATE 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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