

# 3M™ Exterior Trim Film FPB9201JH

## For Injection Molding Process

### Technical Data Sheet



#### General Description:

3M™ Exterior Trim Film FPB9201JH is a polyurethane film with a matte metallic appearance designed for injection molding processes. The functional urethane film layer has excellent resistance to mechanical abrasion and chemical attack, as well as to prolonged exposure to accelerated weathering. 3M Exterior Trim Film FPB9201JH meets OEM design requirements for decorative accents on exterior trim components. The product is intended to be supplied as a roll good and applied using an injection molding process to dramatically change the appearance of exterior trim plastic pieces such as window seals, belt line and roof ditch moldings. Additionally, exterior trim film can help OEMs move away from traditional chrome plating and galvanized processes used on metal parts which can present hazards to the environment and worker health

This exterior trim film features a polyurethane film layer over a vapor coated metal layer equipped with an ABS polymer capable of heat bonding to compatible resins such as ABS and ABS-PC in cost effective IMD processes, with or without previous thermoforming. The transparent polyester carrier serves to protect the surface of the high gloss polyurethane film layer during transportation. The polyester carrier is designed to be easily removed to reveal a matte chrome finish with a high distinction of reflected image during the injection molding process.

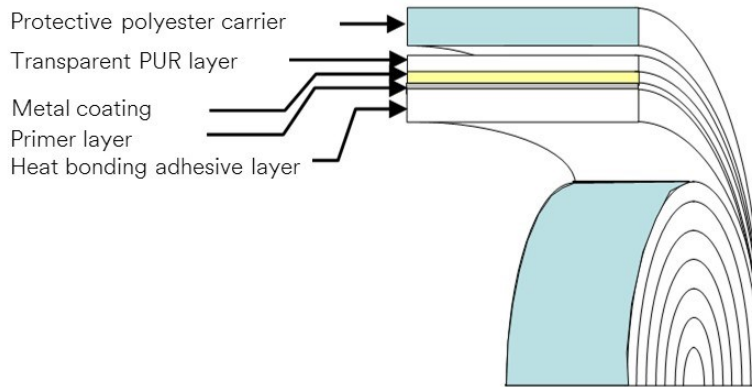
#### Features:

- Effective design tool for brand differentiation and visual impact
- Cost-effective alternative to stamped stainless steel, providing greater design flexibility and weight reduction opportunities
- Allows for matching the finish on parts made from varying substrates
- Holds up to prolonged exterior weathering and tough automotive environments
- Minimizes the use of materials containing Chromium 6

#### Applications:

Belt Line Moldings  
Door Sash Molding  
Daylight Openings (DLO)  
Roof Top Moldings

Product Construction



Physical Properties

Characteristics		
Color	Low Gloss Chrome	
Surface Appearance	Low Gloss	
Film Composition	Thickness	Color
Protective Polyester Carrier	50µm	Transparent
Transparent PUR Layer	30µm	No Color
Metal Vapor Coated Layer	<1.0µm	Silver
Polyurethane Primer Layer	20µm	Transparent
ABS Polymer Adhesive Layer	360µm	Transparent
<b>Nominal Overall Caliper</b>	<b>460µm</b>	

Performance Properties: FPB9201JH heat bonded to TPO

Mechanical & Chemical resistance	Test method & requirement	Result
Chemical resistance: (FAM test fuel (DIN 51604 -1B), Gasoline E10, Diesel, Iso-propanol, Sodium Hydroxide, Sulfuric Acid, Hydrochloric Acid, H2O, Tree resin, Bird droppings, Car Wash Detergent, Wax and dewax)	DIN EN ISO 2812-4: drop method A, 10 min at room temp  • no changes	Pass
Car wash / scratch resistance	ISO 20566: 2013 • no changes	Pass
Scratch resistance - Erichsen model 318	> 7N load • no visible marking	Pass
Adhesion & Appearance after ageing	Test method & requirement	Result
Humidity condensation atmosphere (240h at 40°C - 100% RH)	DIN EN ISO 6270-2 • no changes	Pass
Salt spray – 600 hours	DIN EN ISO 9227 • no changes	Pass
High Pressure Cleaning	DIN 55662: Static method with cross cutting • no surface damage • no adhesion loss	Pass Pass
Kalahari Xenon Test: 2 years (Non-Metallic Materials; Weathering in Dry, Hot Climate)	Kalahari / Florida Simulation • gloss loss maximum 15%	Pass/Pass
Florida Xenon Test: 2 years (Non-Metallic Materials; Weathering in Moist, Hot Climate)	• minimal change in E allowed	Pass/Pass

\*Values presented have been determined by standard test methods and are average values not meant to be used for specification purposes.

### Shelf Life

12 months from date of manufacture when stored in original packaging at  $22 \pm 4$  °C and < 60 % RH.

**Technical Information:** The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

**Product Selection and Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

**Warranty, Limited Remedy, and Disclaimer:** Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

**Limitation of Liability:** Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.



### Automotive and Aerospace Solutions Division

3M Center  
St. Paul, MN 55144-1000  
Phone 1-800-328-1684

Web [www.3M.com/autosolutions](http://www.3M.com/autosolutions)

3M is a trademark of 3M Company  
Please recycle. Printed in USA.  
© 3M 2017 All rights reserved.