

Fluorex[®] Bright film for automotive trim

DESCRIPTION:

Fluorex[®] Bright film offers a cost-effective solution for many automotive components that require a chrome or metal appearance. Fluorex[®] Bright film is a new developed product that can be used on a variety of automotive components including grilles, mirror housings, badges, body side mouldings and interior components. Fluorex[®] Bright film is processed by in-mould decoration (IMD) or extrusion lamination.



TYPICAL PROPERTIES:

Fluorex[®] Bright film does meet the OEM standards and is supplied on a 0.425-mm ABS sheet or 0.200-mm ABS sheet. Shrinkage rates may vary, depending upon part geometry and thermoforming conditions. Typical shrinkage for 0.425-mm ABS is 0.6-0.9%.

TEST DATA:

Description	Test Method (FORD)*	Results
Florida 5 years	ASTM G7	Pass
Arizona 5 years	ASTM G7	Pass
Xenon (2500kj)	BO 101-01	Pass
Water resistance	ESB-M5P10-A 3.10.2	Pass
Humidity	ESB-M5P10-A 3.10.3	Pass
Cleaners & wax resistance	ESB-M5P10-A 3.10.4	Pass
Oil Resistance	ESB-M5P10-A 3.10.7	Pass
Adhesion	ESB-M5P10-A 3.6	Pass
Flexibility at 23°C ± 2°C	ESB-M5P10-A 3.7	Pass
Topcoat stability	ESB-M5P10-A 3.9	Pass
Salt spray resistance	ESB-M5P10-A 3.5.6	Pass

Note: All testing performed at 25% stretch level. Fluorex[®] Bright film is capable of stretch to appr 40%;

HANDLING AND STORAGE:

- Boxes containing rolls of Fluorex[®] Bright film should be stored in the original packaging to prevent contamination. It is best not to remove the material from the moisture-proof wrap until you are ready to use it and rewrap any unused portion. If stored in a vertical position, rolls should be fully supported on a flat surface.
- This material should not be stored outdoors, in places of high humidity or extreme temperatures.
- Temperatures below 0°C and over 35°C should be avoided.
- Materials stored under high humidity conditions (>80%) for extended periods, can absorb moisture. Under these conditions, pre-drying is necessary to guarantee optimal quality after processing (see below).

NOTE: ABS is hygroscopic, therefore, is sensitive to moisture absorption. If drying is necessary, dry for approx. 24-48 hrs in a circulation oven at 60°C.

INSERT HANDLING

Once a laminate is formed and trimmed, one must take care that the appliqué is not damaged or the surface is not contaminated with dust, dirt or trimming scraps.

To avoid surface damage we recommend the following operations:

- Do not pile appliqués on top of each other ('nest') without soft tissue or cloth between each part.
- Have all personnel wear soft or latex gloves.
- Cover all sharp objects in the room and on clothing where appliqués are handled.
- To avoid dust pick-up or contamination we recommend the use of anti-static devices specifically designed for clean room atmospheres.

PROCESSING:

No special equipment is necessary when processing Fluorex® Bright film. Existing thermoforming and moulding equipment can be used; however, moulds should be made or modified to accept the film in the cavity. Trimming of the appliqué (preform) can be accomplished in-line with the thermoforming process or in a separate operation following the thermoforming step. Robotic laser trimming or cutting with a mechanical or hydro-mechanical die-trimming press is recommended. MSDS sheet is available upon request.

THERMOFORMING PROCESSING CONDITIONS:

Top heat or reflective Brite side of film	Heaters Off
Ideal Laminate temperature (ABS side)	140°C – 170°C
Vacuum mould temperature	35°C – 40°C

INJECTION MOULDING CONDITIONS:

Film side of mould	35°C – 40°C
Non- film Side of mould	As recommended by the resin supplier

TROUBLESHOOTING:

Description	Cause / Correction
Surface blushing, Iridescence or rainbow look	Laminate surface temp. too high -decrease temp or check to verify no top heat on laminate side Laminate dwell time may be too long – reduce length of time in oven.
Blistering on laminate surface	Laminate surface may be too hot or ABS may have moisture contamination - dry ABS if necessary
Surface dulling or black appearance	Material is over-stretched beyond its capability. Check part/mould design

For more information on processing ABS products, please refer to the "Fluorex® Process Guide".

For more information, visit our website: www.paintfilm.com **or contact:**

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