

Technical information

EUROPLEX® Film HC 0F046

Product Data Sheet

Product

EUROPLEX® Film HC 0F046 is a weather resistant, transparent and optical quality co-extruded PMMA and PVDF film for graphic lamination systems.

This film displays excellent performance in long term outdoor weathering without experiencing color change or yellowing.

EUROPLEX® Film HC 0F046 provides high protection for other polymeric substrates against degradation caused by UV radiation.

Due to its PVDF top layer, the film displays very good chemical resistance, anti-soiling and easy to clean effect.

Application

EUROPLEX® Film HC 0F046 can be laminated as a protective top layer onto polymeric films and sheets based on PVC, ABS, PC and ASA.

Decorative films protected with EUROPLEX® on top can be thermoformed and laminated on different substrates, such as PVC profiles, or used in complex shapes molding processes such as In-Molding Decoration.

In labels or Graphic Arts, EUROPLEX® Film HC 0F046 can be used as a high quality clear overlay in laminate systems for high UV and weathering protection. Chemical resistant, anti-soiling and easy to clean effects are achieved.

Processing

EUROPLEX® Film HC 0F046 is only suitable for back printing, on the PMMA side, by a wide variety of printing technologies.

EUROPLEX® Film HC 0F046 can be laminated onto polymeric substrates such as films or extruded sheets based on PVC, PC, ABS, PMMA and ASA by in-line or roll-to-roll heat lamination.

High quality laminates in between EUROPLEX® Film HC 0F046 and other polymeric substrates can be achieved with pressure sensitive adhesives (PSA) or solvent based adhesives.

The film can be cut-to-size or die cut.

Sales range

EUROPLEX® Film HC 0F046 is delivered in standard rolls of 53µm thickness, 45µm PMMA layer and 8µm PVDF top layer, and 1450mm width.

Tailor made rolls can be produced under prior commercial agreement.

Technical data

Properties	Test method	Unit	Value
Optical			
Luminous transmittance τ_{D65}	ISO 13468-2	%	92
UV transmittance (280 – 380 nm)	DIN EN 410:2011	%	≤ 1,5
Refractive Index	ISO 489	%	-
Haze	ASTM D1003	%	3
Mechanical			
Tensile stress at yield (σ_y)	ISO 527-3	MPa	37
Yield strain (ϵ_y)	ISO 527-3	%	7
Nominal strain at break (ϵ_B)	ISO 527-3	%	≥ 50
Thermal			
Glass transition temperature T_g (DSC)	ISO 11357	° C	-
Miscellaneous			
Accelerated weathering resistance	ISO 4892-2 method A, cycle 1, 65% RH	h	10000 No visible change
Specific gravity	DIN 53479	g/cm ³	1,2
Surface tension (PVDF side)	DIN 53364	mN/m	23

® = registered trademark EUROPLEX is a registered trademark of Evonik Röhm GmbH, Darmstadt, Germany.
Certified to DIN EN ISO 9001 (Quality) and DIN EN ISO 14001 (Environment)

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

Evonik Performance Materials GmbH

Acrylic Polymers

Kirschenallee, 64293 Darmstadt, Germany

films@evonik.com www.plexiglas.net www.evonik.com

Ref. No. 239-19 July 2015