

PLEXIGLAS® Film 0F003

Product Data Sheet

Product

PLEXIGLAS® Film 0F003 is a UV and weather resistant acrylic film with one side matt and another side glossy surface. It also presents high light transmission and transparency.

Due its two different surfaces the film provides freedom for different finishing effects after printing and/or molding.

The matt finishing side provides anti-blocking effect in printing processes and a light scattering can be achieved when used in illumination applications.

PLEXIGLAS® Film 0F003 also presents a good scratch resistance when compared to other polymeric films.

Application

The combination among printability, cut-to-size, die cutting, scratch resistance and anti-blocking effect leads PLEXIGLAS® Film 0F003 to be a good material to be used in film decoration in forming, back molding or over molding parts such as automotive, household, home appliances, electronic devices.

In illumination applications, PLEXIGLAS® Film 0F003 provides a very good combination in between light transmission and light diffusion providing a light scattering effect.

Processing

High quality graphic printings can be achieved with PLEXIGLAS® Film 0F003. The film is easily printed by screen printing and digital printing technologies and in most of the cases the film can be printed without any pre-treatment such as primers or corona.

The film can be cut to sizes with die-cut using steel rule dies and column guided tools. By using laser cutting, glossy and shiny edges are achieved.

Easily processed by thermo-forming, high stress forming, over molding, and back molded processes.

Sales range

PLEXIGLAS® Film 0F003 is delivered in standard rolls of 250µm thickness, 1270mm width, and 1000m length.

Tailor made rolls and cut-to-size sheets can be produced under prior commercial agreement.

Technical data

Properties	Test method	Unit	Value
Optical			
Luminous transmittance τ_{D65}	ISO 13468-2	%	87
UV transmittance (280 – 380 nm)	DIN EN 410:2011	%	< 5
Gloss (60°) matt side	DIN 67530		2,3
Gloss (60°) glossy side	DIN 67530		85
Refractive Index	ISO 489	%	1,49
Mechanical			
Tensile stress at yield (σ_y)	ISO 527-3	MPa	51
Yield strain (ϵ_y)	ISO 527-3	%	13
Nominal strain at break (ϵ_B)	ISO 527-3	%	25
Thermal			
Glass transition temperature T_g (DSC)	ISO 11357	° C	113
Miscellaneous			
Accelerated weathering resistance	ISO 4892-2 method A, cycle 1, 65% RH	h	3000 No visible change
Specific gravity	DIN 53479	g/cm ³	1,17
Surface tension	DIN 53364	mN/m	50

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

Evonik Industries is a worldwide manufacturer of PMMA products sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian continents and under the ACRYLITE® trademark in the Americas.

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 Industries AG

Acrylic Polymers

Kirschenallee, 64293 Darmstadt, Germany

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

Ref. No. 239-7 November 2013