

## Product Description

RowLux® is a multi-lensed thermoplastic film that manipulates light to create a variety of unique and interesting visual effects. These remarkable motion and dimensional effects are obtained from thousands of minute parabolic lenses that are molded into the surface on both sides of the film. These lenses create a pattern of absorption and reflection of light which results in unique and highly dramatic optical characteristics.

## Surface Area

Shimmering silk, stardust sparkles, geometric repetition and 3D effects are some of the ways to describe the Illusion Films. The material lends itself to many downstream processing methods. Printability is the key feature of RowLux®. RowLux® Illusion Film can also be easily die cut and adhesively bonded to many different substrates.

## Application Area

Applications for RowLux® are as varied as the imagination allows. It has been used in architectural interiors, point-of-purchase displays, gaming machines, clothing, apparel and accessories, foot-wear, business cards, decals, home furnishings, musical instruments and more. There are virtually limitless possibilities available to your designers and engineers.

## Technical Data

### Physical

Specific Gravity	ASTM D-792	---	1,20
Water Absorption at equilibrium	ASTM D-570	%	0,32
Rockwell Hardness	ASTM D-785	R Scale	118
Pencil Hardness	ASTM D-3363	Scratch Hardness	B

### Mechanical

Tensile Strength, Break	ASTM D-638	MPa	72
Tensile Strength, Yield	ASTM D-638	MPa	60
Tensile Elongation, Break	ASTM D-638	%	150
Tensile Modulus of Elasticity	ASTM D-638	MPa	2.400
Tear Strength, Initial	ASTM D-1004	N/μm	0,25 - 0,32
Tear Strength, Propagation	ASTM D-1922	g / μm	1,18 - 2,15
Impact Strength, Gardner <sup>1</sup>	ASTM D-5420	J	13

### Thermal

Deflection Temperature under Flexural Load @ 1.8 MPa	ASTM D-648	°C	142
Tensile Heat Distortion @ 0.34 MPa	ASTM D-1637	°C	150
Coefficient of Thermal Expansion	ASTM D-696	cm / cm / °C	68,4 x 10 <sup>-6</sup>
Brittleness Temperature	ASTM D-746	°C	-135
Vicat Softening Temperature	ASTM D-1525	°C	152

Footnotes: (1) Value for 0,025 mm film (2) Value for 0,250 mm film (3) Value for 0,762 mm film (4) Value measured for Gloss / Gloss film

## IMPORTANT NOTICE

All RowTec® products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects. Published information concerning RowTec® products is based upon research, which the Company believes to be reliable although such information does not constitute a warranty. Because of the variety of uses of RowTec® products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use. All specifications are subject to change without prior notice.

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