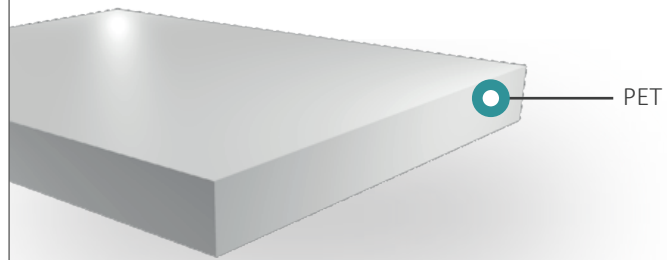


Lumirror® F65F

Application

- Hot stamping
- Cold stamping
- Security



SYMMETRICAL
HAZY PET FILM

Benefits

- Low shrinkage at high temperature
- Excellent mechanical properties
- Specific micro-roughness on both sides
- Based on Toray Worldwide standard for hot stamping process

Toray Films Europe SAS,
Place d'Arménie,
01700 Saint-Maurice-de-Beynost, FRANCE

To access Toray Films Europe's **certifications list**, please visit
www.torayfilms.eu/en/certifications

Typical Values *(These values do not constitute binding specifications)*

Properties	Test Method	Unit	5.7 µm	12 µm	15µm	19µm	23 µm
YIELD							
Unit Weight		g/m ²	8.0	16.8	21.0	26.6	32.2
Area Yield		m ² /kg	125.3	59.5	47.6	37.6	31.1
MECHANICAL							
Tensile Strength MD	ASTM D 882	daN/mm ²	29	20	19	20	20
Tensile Strength TD			26	25	23	23	24
Elongation at Break MD	ASTM D 882	%	92	130	120	130	130
Elongation at Break TD			85	90	90	110	95
THERMAL							
Shrinkage 150°C 30mn MD	Internal Method	%	2.5	1.5	1.3	1.3	1.4
Shrinkage 150°C 30mn TD			1.0	0.0	0.3	0.3	0.0
Shrinkage 190°C 20mn MD	Internal Method	%		3.5	3.5	3	3.3
Shrinkage 190°C 20mn TD				0.5	0.35	0.1	0.25
OPTICAL							
Gardner Haze	ASTM D1003	%	10	3.1	4	5	4.5
SURFACE							
Roughness Ra	Internal method	nm	165	30	30	30	28
Roughness Rz			1100	300	330	320	310

Regulation

Lumirror® F65F does **not** comply with European applicable requirements for food contact applications. For Toray's certification concerning specific applications with each product, please refer to the 'Declaration of Compliance'.

Presentation of the rolls

Roll packaging: The rolls are suspended on standard paper core with internal diameter of 152.8mm. For all presentation, minimum roll width = 340mm and maximum roll width = 2100mm.

Returnable packaging: Wooden flanges, plastic flanges and pallets are returnable.

Please contact us for...

- Any other presentation (width, length, core)
- Process for returnable packaging
- Any other information about typical values, measuring conditions, tolerances, deliveries...

Lumirror® is a registered trademark of Toray Films Europe SAS - TFE March 2023

DISCLAIMER: This leaflet is provided for informational purpose only and is not binding, nor can it constitute specifications to the buyer. The information contained in this document is based on numerous tests and trials we have carried out in our laboratories. Deviations from the results thus obtained can therefore be experienced depending on the actual conditions of use. This document does not provide any guarantee with regard to compliance of our product with the typical values indicated, nor does it provide any guarantee as the suitability of our products for any particular use.