

TECHNICAL PRODUCT INFORMATION

Product:	Diamond 15 technology-based film +IR+ Anti-fog UV open
Catalog Number:	E2454
Product description:	High strength, high light transmission , multi-layer diffused PE film. The light diffusion reduces construction and self shadows and allows the plants to receive a more even distribution of light during the day and the IR ingredients prevent heat loss at night and anti-fog additives to prevent dripping on the crops.
UV Resistance:	3 years at 160-180 Kly, 4 years at 120 Kly
Thickness:	150-200 μ
Width:	1.0-14.0 m
Length:	According to customer order

Property	Test Method	Units	Value
Tensile Strength at break[MD]	ASTM D-882	MPa.	27
Tensile Strength at break[TD]	ASTM D-882	MPa.	27
Elongation at break [MD]	ASTM D-882	MPa.	500 min
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Tear resistance[MD]	ASTM D-1922	Kg./mm	8.0
Tear resistance[TD]	ASTM D-1922	Kg./mm	11.0
Falling Dart Impact (200 μ)	ASTM D-1709	gr.	1200
Total light transmission at 400-700 nm	EN 13206	%	89
Light diffusion at 400-700 nm	EN 13206	%	55-60
Thermicity	EN 13206	%	90
UV light transmission (300-380nm)	EN 13206	%	70%
Thickness average	EN 13206	%	$\pm 5\%$ on nominal
Thickness tolerance	EN 13206	%	$\pm 15\%$

Use and limitation:

- **Exposure to chemicals:** exposure of greenhouse films to severe chemical conditions has an adverse effect on the lifetime of the film. Avoid excessive use of agrochemicals such as pesticides, herbicides, fungicides and fertilizers. Take measures to prevent direct contact of chemicals to the film. Ensure that metal structures are galvanized and are free from corrosion. When wooden structure parts are used, avoid contact of the film with resin, oil, petroleum or volatile preservatives. Prevent contact of the film with PVC accessories. Chemicals containing halogens, sulfur, copper, iron, are known to accelerate the degradation of greenhouse films.

Specifically, if the following elements are found at levels higher than specified, the films are excluded from this warranty:

Sulfur: max 1000 ppm, Chlorine: 100 ppm, Iron 50 ppm

- **Overheating** the film has an adverse effect on its lifetime. Hot air should be directed away from the film.

When gases are used to disinfect the soil, the treated soil must be covered with a film for a minimum of three weeks. After the film is removed, the greenhouse should be ventilated