Optifuse® IR

TECHNICAL DATASHEET

PRODUCT INFORMATION	
Category	Removable light diffusion with heat protection
Description	Optifuse® IR is a removable greenhouse coating that combines diffusing properties with efficient reflection of heat radiation. Transmission of grow-light remains at a very high level. Optifuse IR is very wear resistant and can be applied on the outside of all standard greenhouse materials.
Properties	• High light transmission • Very high diffusion rate • Reduces temperature • Highly wear resistant • Removable with Topclear Fuse
Recommended use	For all greenhouse surfaces
Recommended surface	Suitable for glass and plastic roofs
Identified users	Industrial – for professional use only

TECHNICAL SPECIFICATIONS	
Physical state	Liquid
Colour	Milky
Odour	Neutral
pH	6.5 – 7.5
Flammability (solid, gas)	Non flammable
Density	1.04 g/cm³
Viscosity	2400 mPa·s Brookfield, 20 rpm, 20°C
Wear resistance	A higher concentration of Optifuse IR is more wear resistant than a lower concentration. Above average amount or intensity of precipitation will increase the wear of the layer.
More transparent when wet	Yes
Transport regulation (ADR, RID, IMDG, IATA, IDN)	No restrictions

STORAGE CONDITIONS	
Packaging	15 kg bucket (= 14,4 L) 1 pallet contains 33 buckets except in case of container shipment (1 pallet 100 x 120 cm contains 56 buckets for containers)
Shelf life	Unopened containers have a shelf life of 2 years. After one year, it is necessary to stir well before mixing with water. Keep only in the original container in a cool, well-ventilated place. Products should be protected against frost (below 0°C) and overheating (above 35°C).

This technical datasheet is based on many years of experience. Lumiforte can not be held liable for any damages resulting from the use of this product or any damages beyond her control. The customer should check, using the means normally available to him, whether the products supplied are suitable for the planned application. If in doubt, consult our technical specialists via welcome@lumiforte.com.

Sudlac is a brand of Lumiforte®

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INSTRUCTIONS FOR USE	
Surface preparation	The surface must be clean and dry before the application of Optifuse IR. A clean surface improves durability. Preferably close the irrigation basin during the application of Optifuse IR.
Weather conditions	• An outside temperature of between 10 and 30°C • Wind speed of less than 2 m/s (7 km/h) • For fast drying: relative humidity (RH) < 80 % • Do not apply Optifuse IR to a wet surface or when rain is expected within 12 hours
Equipment	Application should be done by spraying the liquid on the surface: • By spraying machine • By hand with a spray gun • By helicopter
Personal protection	• Safety glasses • Protective gloves
Quantity	Optifuse IR 15 kg

Buckets/ha		Hemispherical gross shading (incl. glass)	Perpendicular net shading (excl. glass)		Hortiscatter
Machine	Manual	PAR	PAR	NIR	
15	17	-	13%	22%	75%
10	11	-	7%	16%	51%

The values mentioned are maximum shading values possible and applied in laboratory circumstances. Depending on the application technic, weather and greenhouse type, shading values in practice can differ.

Dilution	Dilute Optifuse IR with clean water to prepare your spray liquid: Machine application: 1,000 – 1,500 liter spray liquid per 10.000 m^2 Manual application: 1,700 – 2,000 liter spray liquid per 10.000 m^2
Drying time	Drying time depends on outside temperature, glass temperature and wind speed. The coating should be dry before nightfall because condensation may damage the layer.
Removal	Optifuse IR is easy to remove with Topclear Fuse. Spray at least 240 liters of Topclear Fuse per hect-are, diluted with 1,260 or 1,760 liter water depending on the application method. Only apply Topclear Fuse when a con-siderable amount of rain is expected within one week. The rain will wash of the Optifuse IR layer. Check if the waterways and surroundings are suitable for the inflow of Optifuse IR. Do not apply Topclear Fuse on a wet surface or during rain. Use of roof-sprinklers for cooling can cause removal problems.

EFFECT ON CROPS AND ENVIRONMENT	
Tests	Based on the results of Astredhor 2020 experiment (available on demand), Sudlac diffusion products have no impact on the development and growth of young tomato and cucumber plants. However, we recommend allowing the rinsing water to settle for 24 hours before irrigation.
Environmental precautions	Always dilute products with water in the right amount before use. Dispose in a safe manner in accordance with local/national regulations. If disposing in public water, dispose in a wide river with sufficient capacity. Apply the coating by machine if possible, this gives a more uniform layer and less loss of product into the environment. Discharging cleaning water into the watercourse without flow can give turbidity or cause whitening, ensure enough flow.

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