# TECHNICAL DATASHEET REDUFUSE IR




## Product information

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| **Category** | Diffuse coating for greenhouses |
| **Description** | ReduFuse IR is a removable coating that reduces heat radiation while diffusing the light when it enters the greenhouse. ReduFuse IR is normally applied in spring or early summer and will last until it is removed with ReduClean for diffuse coatings. |
| **Properties** | • High level of grow-light (PAR) transmission<br>• High reflection of heat radiation (infrared)<br>• An evenly balanced climate due to light diffusion<br>• Less stress in the crop<br>• More photosynthesis, also in the lower leaves<br>• Lower leaf temperatures |
| **Recommended use** | For exterior greenhouse covers |
| **Recommended surface** | Suitable for glass, acrylate, polycarbonate and plastic film |
| **Identified users** | Industrial – for professional use only |

## Technical specifications

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| **Physical state** | Liquid |
| **Colour** | Beige |
| **Odour** | Characteristic |
| **pH** | 9.6 |
| **Flammability (solid, gas)** | Non flammable |
| **Density** | 1,1 g/cm$^3$ |
| **Viscosity** | 8000 mPa.s Brookfield RV, spindle 5, 10 rpm, 20°C |
| **Wear resistance** | A higher concentration of ReduFuse 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

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| **Packaging** | 15 kg bucket (= 13,5 L)<br>1 pallet contains 33 or 44 buckets |
| **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. We 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 sales@redusystems.com.

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## Instructions for use

**Surface preparation**

The surface must be clean and dry before the application of ReduFuse IR. A clean surface improves durability.
Preferably close the irrigation basin during the application of ReduFuse IR.

**Weather conditions**

- An outside temperature of between 10 and 25 °C
- Wind speed of less than 2 m/s (7 km/h)
- For fast drying: relative humidity (RH) < 80 %
- Do not apply ReduFuse 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**

| | BUCKETS/HA | | GROSS SHADING INCL. GLASS & STRUCTURE | | NET SHADING EXCL. GLASS & STRUCTURE | | |
|---|---|---|---|---|---|---|---|
| | **MACHINE** | **MANUAL** | **PAR** | **NIR** | **PAR** | **NIR** | **HORTISCATTER** |
| ReduFuse IR 15 kg = 13,5 l | 22 | 24 | 46 % | 51 % | 15 % | 20 % | 57 % |
| | 18 | 20 | 43 % | 47 % | 12 % | 16 % | 37 % |
| | 15 | 17 | 41 % | 44 % | 10 % | 13 % | 25 % |
| | 10 | 11 | 37 % | 39 % | 6 % | 8 % | 10 % |

**Dilution**

Dilute ReduFuse IR with clean water to prepare your spray liquid:
Machine application: 1,000 – 1,500 liter spray liquid per 10.000 m²
Manual application: 1,700 – 2,000 liter spray liquid per 10.000 m²

**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**

ReduFuse IR is easy to remove with ReduClean for diffuse coatings. Spray at least 250 liters of ReduClean for diffuse coatings per hectare, diluted with 5-7 parts of clean water. Only apply ReduClean for diffuse coatings when a considerable amount of rain is expected within one week. The rain will wash of the ReduFuse IR layer. Check if the waterways and surroundings are suitable for the inflow of ReduFuse IR.

*Do not apply ReduClean for diffuse coatings on a wet surface or during rain. Use of roof-sprinklers for cooling can cause removal problems.*

## Effect on crops and environment

**Tests**

2014 Mardenkro B.V. Environmental impact study: ReduFuse IR gives water a temporary white colour but settles quickly and becomes part of the soil structure in the water.

**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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