TECHNICAL DATASHEET REDUHEAT



Product information

Category	Shading coating for greenhouses
Description	ReduHeat is a removable shading coating containing a pigment that transmits grow-light (PAR) while reflecting a larger part of the heat radiation. ReduHeat is normally applied in spring or early summer and will last until it is removed with ReduClean.
Properties	• High level of grow-light (PAR) transmission • High reflection of heat radiation (infrared) • An evenly balanced climate without peaks • Highly wear-resistant • Easy to remove with ReduClean
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

Physical state	Liquid
Colour	Beige
Odour	Characteristic
pH	9
Flammability (solid, gas)	Non flammable
Density	1,1 g/cm^3
Viscosity	7600 mPa.s Brookfield RV, spindle 5, 10 rpm, 20°C
Wear resistance	A higher concentration of ReduHeat 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 (= 13,5 L) 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 ReduHeat. A clean surface improves durability.
Preferably close the irrigation basin during the application of ReduHeat.

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 ReduHeat 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		HEMISPHERICAL NET SHADING EXCL. GLASS	HEMISPHERICAL GROSS SHADING INCL. GLASS	PERPENDICULAR NET SHADING EXCL. GLASS	
	MACHINE	MANUAL	PAR	PAR	PAR	NIR
ReduHeat 15 kg = 13,5 L	25	28	42%	52%	35%	55%
	20	22	32%	44%	26%	45%
	15	17	22%	36%	17%	32%

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 ReduHeat 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

ReduHeat is easy to remove with ReduClean. Spray at least 250 liters of ReduClean per hectare, diluted with 5-7 parts of clean water. Only apply ReduClean when a considerable amount of rain is expected within one week. The rain will wash of the ReduHeat layer. Check if the waterways and surroundings are suitable for the inflow of ReduHeat.
Do not apply ReduClean on a wet surface or during rain. Use of roof-sprinklers for cooling can cause removal problems.

Effect on crops and environment

Tests

2006 Mardenkro B.V. Environmental impact study: ReduHeat gives water a temporary white colour but settles quickly and becomes part of the soil structure in the water.
2014 Groen Agro Control. Effect on irrigation water: No signs of impact on plant growth or root development.

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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