

Reinforced shading paint for plastic or glass greenhouses .

- EXCELLENT WEATHERABILITY.
- ADAPTED TO HIGH SUNNY REGIONS.
- ADJUSTABLE SHADING INTENSITY ACCORDING TO DILUTION RATE.
- CAN BE APPLIED ON GLASS OR PLASTIC SCREENS.
- ELIMINATES ITSELF OVER TIME.
- BARRIER AGAINST INFRARED AND U.V RAYS.
- BIODEGRADABLE.

PRODUCT IDENTIFICATION

Classification according to NF T 36-005 : Family I - category 7b:

DESCRIPTION

Seasonal waterborne paint with mineral fillers and acrylic copolymers resins, especially designed for shading plastic or glass greenhouses being used by flower and vegetable growers with a very low ecological impact (biodegradable more than 95 % in one year) as well a high performance and solid content.

PRODUCT DATA

Solid content : By weight : $63.7 \pm 2,0$ %
By volume : $41.3 \pm 2,0$ %

Density : $1,62 \pm 0,05$ kg/dm³.

Dry time (at 23°C and 50 % RH) :

To touch : 2 hours.
To recoat : 6 hours.

Flash point : Non flammable, waterborne product.

Product texture : Paste-like product.

Dry aspect : Matt.

QUALITY CONTROL

The mentioned characteristics are subject to a factory production control (FPC), realized according to a Quality Management System certified ISO 9001 (2008) and an Environmental Management System certified ISO

FIELD OF USE

WORKS

New and renovation.

DESTINATION

Functional maintenance of greenhouses (flower and vegetable growers and so on...). Can also be used for shading industrial skylights or to provide window opacity on construction sites of new buildings.

LOCATION

Outdoor.

WELL PREPARED SUBSTRATES

Plastic films (polyethylene, E.V.A or derivatives), plastic or glass translucent panels (polycarbonates).

SUITABILITY

- Uniform active shading
- Adjustable opacity
- Large application periodicity. Can be used in late winter (regions with high sunshine).
- Gradual paint film wearing under rain and U.V. actions
- Protection against overheating: this protection is beyond the temperature in the shelter (Cf. weather data). This is the result of solar radiation reflection thanks to the paint film (reflectance of the new coating or being renovated at about 30 %). During very hot period, crops should be watered in order to compensate the excessive water evaporation.
- Good product burst and uniform spread with a helicopter application. Reduces the number of passes.

LIMITATIONS FOR USE

- Do not apply at a temperature below 5°C and at a humidity rate higher than 80%, or with risk of frost. Do not apply when it may rain in the next 12 hours, on frozen or hot substrates above 35 °C, on humid or condensing surfaces.
- If the shading process needs to be renewed during the season, make sure of the good adhesion of the existing shading paint film.

PRACTICAL COVERAGE AND PERFORMANCES

Shading intensity	Product	Dilution (water)	Practical coverage
Light shading	OMBRAFLEX HORTICOLE 25 kg	+ 90 to 120 liters	1600 to 2100 m ²
Medium shading		+ 60 to 90 liters	1150 to 1600 m ²
Intensive shading		+ 30 to 60 liters	700 to 1150 m ²

Shading intensity	Dilution	Drums /ha ⁽¹⁾	Total reflectance (%) ⁽²⁾	PAR (% visible transmittance) ⁽²⁾	Wear resistance(%) ⁽³⁾
Light shading	1:7	5	 46	 51	
Medium shading	1:5	8	 56	 44	
Intensive shading	1:3	12	 66	 31	

⁽¹⁾ Average value which can vary with the limit of 30 % depending on needs and weather conditions. ⁽²⁾ These are guide values (achieved in laboratory) and may vary for measurements realized *in situ* depending on coverage and dilution applied. ⁽³⁾ Product wear resistance of Ombraflex range is based on an average European climate. Extreme weather conditions can modify the indicated results.

APPLICATION GUIDELINES

SUBSTRATE PREPARATION

Substrates must be perfectly clean and dry, free from dust and oily substances, and no residual shading paint should remain, especially when this is the first application of the season.

TOOLS

Appropriate agricultural spraying equipment, like being portable, towed, self-propelled or airborne, for instance:

- An 8 to 12 m long boom sprayer, using a 1,5 Ø nozzle for the upper outflow, 1,2 Ø for the low outflow or with a spray lance: 1,5 to 2 Ø nozzle. Pressure 10 bars.
- Mist blower using a lance with 1,5 to 2 Ø nozzle. Pressure 8 to 10 bars.

DILUTION AND APPLICATION PERFORMANCE

With a good quality water (like tap water at maximum 25 °C and with a pH closed to 7).

Pour OMBRAFLEX HORTICOLE into a large container (or a spray tank). Progressively add water and carefully stir to avoid any nozzle clogging and to obtain an uniform product spread on the surface to be treated (See table above).

APPLICATION

Spray one uniform coat of diluted product, avoiding over-thicknesses and overloading. However, two or three coats can be applied depending on the application method used and the required opacity.

EQUIPMENT CLEANING

With water, immediately after use.

PRACTICAL RECOMMENDATIONS

OMBRAFLEX HORTICOLE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Horticulture, plant nurseries												
Market gardening												
Shading intensity		High		Medium		Light			Possible / not advisable			Not suitable

CLEANING

OMBRAFLEX HORTICOLE provides a temporary protection, which fades after a few months under the sun and rain actions. After heavy rain or a period of strong sunlight, the shading paint can get prematurely eliminated. In that case, it will be necessary to apply a new coat.

In case of incomplete disappearance of the shading paint film at the end of the season, (low rain fall or late application), the coat residue will be removed either by mechanical cleaning (with a brush and clear water) and/or with OMBRASTOP GEL cleaning solution (See technical data sheet for the removal conditions).

PACKAGING AND COLORS

PACK SIZE : 25 kg drum and on request 2,5 L can.

COLOURS : Delivered in off-white. Do not modify the original color by adding any universal tints

HYGIENE AND SAFETY / HEALTH AND ENVIRONMENT

Material safety datasheet : Available on www.quickfds.fr.

VOC (Directive 2004/42/EC and French decree of 29 may 2006): EU limit value for this product (cat. A/i) 140 g/l. This product contains maximum 12 g/l of VOC ready to use.

OMBRAFLEX HORTICOLE does not contain any of the most dangerous substances not being allowed to be introduced into groundwater and being classified "1" in the annex of the Directive 80/68/EEC.

OTHER INFORMATION

Standard for use : NF UTD 59.1, for the use on glazed buildings.

Maintenance : with the original product.

Recommendations concerning paint products storage conditions after opening in order to limit the residues formation : clean the lid and the inside sides of each packaging, seal it hermetically.

Storage : 12 months in the former 25 Kg drum, not opened, store away from frost, heat and humidity.

Waste processing : packaging and product residues intended to professionals, treatable as non-hazardous ordinary construction waste for paint products.

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CONDITIONS OF USE :

This product must be used according to above information and manufacturer general terms of sales. The provided data are the result of product qualification tests for a use in conformity with Good Utility Practice: standards, professional rules, regulations, technical user documentation of the manufacturer (technical specifications, private standards and so on...). It is up to the user to evaluate the substrate characteristics for his preparation and execution works, after checking that the technical product data sheet has not been modified by a more recent edition and that he has all the documents to which the information sheet refers.



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