

Product sheet – Chrysal LeafShine & Seal

General

- For a natural shine of leaves of plants, cut flowers and cut foliage.
- Increases sales by improved shelf presentation as plants are looking healthy and fresh.
- Reduces transpiration by a total coating that increases the resistance of the stomata in the leaves. Still allowing plant respiration.
- No phytotoxic effect on leaves or flowers.
- Odourless, water based product, no chill damage risk.
- Available in 1 liter and 200 liter sizes.
- Effects last for up to a month.

Shine effects

- Provides an even coating on the leaves without drops and spots.
- Makes dust, residue, white lime and mildew spots invisible.
- Levels of gloss can be adjusted by changing the dosage.
- Improves colour contrast between leaves and flowers.

Seal effects

- Increases shelf life by 1-3 days, depending on the transpiration rate of the plant.
- Reduces transpiration by partly sealing plants' stomata without causing any damage to the plant.
- Plants need watering less frequently during the retail stage.
- Prevents premature wilting of individual plants in arrangements.

Applications

- For use by growers, exporters and packers.
- Apply through plant sprayer, backpack sprayer, spray boom, spray tunnel or atomizer. When pressure sprayers are used, set pressure at 2 bar.
- A protective film appears after application, once the water has evaporated (drying time depends on the humidity, but can take up to 4 hours).
- Plants can be sleeved or packed into boxes immediately after Chrysal LeafShine & Seal application without the risk of residue drop formation or fungal diseases.
- Solution can be re-used / stored for a maximum of 1 week.
- For more information see page 3 for dosage and crop list.
- We advise small scale tests prior to large scale application of the product. For test protocol see page 5.

Savings / sales effect

- 10% average waste reduction.
- Improved sales and better margins.



Recommendations

- No need to clean the plants beforehand.
- Spray both upper and lower leaf surfaces for best anti-transparent effect.
- Avoid accumulation of spray mist in the heart of plants.
- Plants should not be placed in direct sunlight whilst being sprayed or before completely dry.
- Spraying on Impatiens is not recommended.
- Do not mix residual solutions with freshly made ones.
- Avoid spraying furniture, walls and floors to prevent stains and the risk of slipping. Use a waterproof mat to avoid spray residue on floors.
- Chrysal recommends to clean all equipment immediately after use with a detergent / soap solution.
- If re-using the product a filter is necessary. Use a fine filter $\pm 50\mu\text{m}$ (e.g. Mahle amaFlow).

Shelf life

- Store in a dark and dry place, preferably between 41°F and 50°F / 5°C and 15°C.
- Shelf life: 18 months, stored under the right conditions.
- The concentrate should look milky / white (see picture below, bottle 1). If clear layers of liquid are visible in the concentrate (bottles 2, 3 and 4), the concentrate has separated and the product is no longer effective. A small amount (<5%) clear liquid under the milky concentrate is not an issue. In case the product has separated, please contact your local Chrysal sales representative.



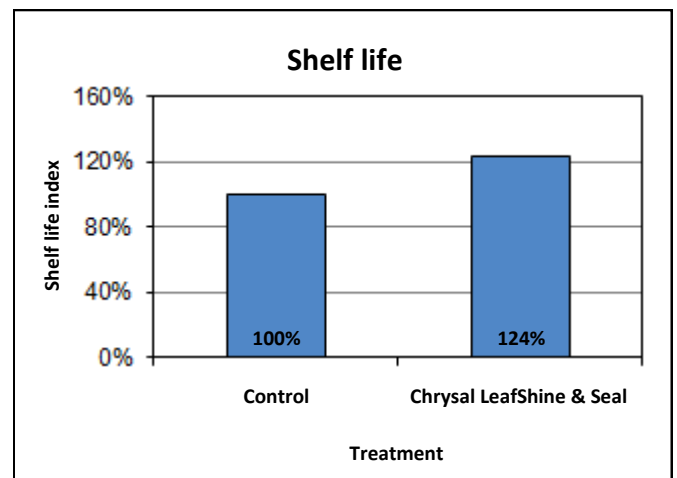
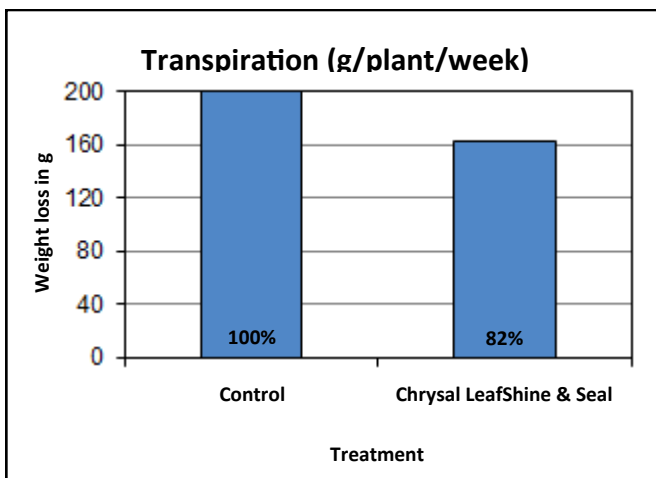
Dosage

Dilute concentrate with tap water to get the required effect. Shake or stir well both concentrate and ready-to-use solution before use.

| Dosage | SHINE effect <i>Spray upper leaf surface Fine mist</i> | SEAL effect <i>Spray upper and lower leaf surface Small droplets till run off</i> |
|-----------------|---|--|
| 1:20 (50 ml/l) | High-gloss | Plant with high transpiration e.g. Hydrangea, Lavandula |
| 1:40 (25 ml/l) | Gloss | Most plants |
| 1:100 (10 ml/l) | Silk-gloss | Not advised |

Test Results

The following graphs show the effect of Chrysal LeafShine & Seal on transpiration and shelf life of potted plants compared to no treatment at all.



Crop list

Tests show a positive effect of Chrysal LeafShine & Seal on the following plants:

- | | | | |
|-------------------------|------------------------|------------------------|---------------|
| Anthurium | Cupressus | Hydrangea | Rhododendron |
| Areca | Dieffenbachia | Jasminium | Rosa |
| Aster | Dipladenia | Lavandula | Schefflera |
| Azalea | Dracaena | Lilium | Spathiphyllum |
| Beaucarnia (Nolina) | Ficus | Nephrolepis | Stephanotis |
| Begonia | Gardenia | Olea | Tagetes |
| Bougainvillea *buttiana | Gerbera | Pachira | Thuja |
| Calathea | Hebe | Pelargonium (Geranium) | Viburnum |
| Campanula | Hedera | Petunia | Vinca minor |
| Celosia | Helianthus | Phaleanopsis | Yucca |
| Chamaecyparis | Helleborus | Picea | Zamioculcas |
| Chrysanthemum | Hibiscus rosa-sinensis | Pinus | |
| Citrofortunella | Howea | Primula | |

Spathiphyllum 'Chopin'



Control
Photo taken: day 8



Treatment: Chrysal LeafShine & Seal
Photo taken: day 8

Chrysanthemum 'Classic Yellow'



Control
Photo taken: day 14



Treatment: Chrysal LeafShine & Seal
Photo taken: day 14

Monstera deliciosa



Untreated

Silk gloss / cleaner
10 ml/l

Gloss
25 ml/l

High gloss
50 ml/l

T250 / US / v2307

Chrysal Leafshine & Seal – Test Protocol

Want to test the effects of Chrysal LeafShine & Seal for yourself?

With this test protocol we will guide you.

In order to compare, the test should always contain treated and control plants. Select plants that are uniform in stage of development. Use at least 6-10 plants per treatment.

Test procedure:

1. Fully saturate the soil with water and number each plant related to a treatment.
2. Shake concentrate well before preparing the solution.
3. Prepare the solutions in a plastic bottle or measuring cup and shake/stir well before spraying. Dosage: 25 ml/l or 50 ml/l.
4. Spray the solution on the plants until run-off, spray upper and lower leaf surfaces.
5. Place plants in a room with a stable climate and make sure that the plants on each treatment stand in similar conditions to be able to make comparisons.
6. Do not re-water the plants.
7. Weigh the plants each day.

Example observations:

- Record the weight loss in grams in the first 7 days:

| | Weight of the plant (g) | | |
|--------------------------|-------------------------|-----------|-------|
| | Day 1 | Day 3 / 4 | Day 7 |
| Control | 505 | 460 | 380 |
| Chrysal LeafShine & Seal | 505 | 490 | 445 |

- Record the time (in days) till wilting:

| | Wilting of the plant (day) | | | | | | |
|--------------------------|----------------------------|---------|---------|---------|---------|---------|--------------------|
| | Plant 1 | Plant 2 | Plant 3 | Plant 4 | Plant 5 | Plant 6 | Average shelf life |
| Control | 5 | 6 | 6 | 7 | 5 | 7 | 6 |
| Chrysal LeafShine & Seal | 8 | 7 | 8 | 9 | 7 | 9 | 8 |

- Take pictures to record the effects you have seen.

Calculate use

In case there is a need to calculate the use of Chrysal LeafShine & Seal this is possible by dividing the amount of product used by the number of plants.

| | | |
|----------|-----------|---------------------------------------|
| Example: | Start | 1000 ml |
| | Remaining | 340 ml |
| | Used RTU | 660 ml per 45 plants -> 15 ml / plant |

Chrysal has a ROI model to calculate the cost of the concentrate in total. Please contact your local Chrysal sales representative for this.