agriplast®

BE. EVERYWHERE.

Grow, everywhere.


Global warming
is reshaping
agriculture.
How can we
stay ahead of
the challenge?

Grow, everywhere.

More than a motto

"Grow Everywhere" is the driving force behind Agriplast's R&D approach.

We believe that **advanced greenhouse films** can empower farmers to overcome climate stress and continue growing—even under extreme weather conditions.

Heat control

Pros and cons of current techniques

Farmers use different strategies to reduce internal heat, including:

- **Whitewashing**
- **Thermal screens**
- **Shade nets**
- **Opaque films**

These solutions are all based on the same concept:

reducing incoming light.

Less light
= Less yield

Until now, growers have accepted this trade-off: cooler greenhouses, but lower productivity.

Is that compromise still necessary? Or is there a smarter alternative?

Near Infrared Radiation (NIR)

The Heat Driver

A specific part of the solar spectrum—**Near Infrared (NIR)**—is the **main cause of greenhouse overheating** during the day.

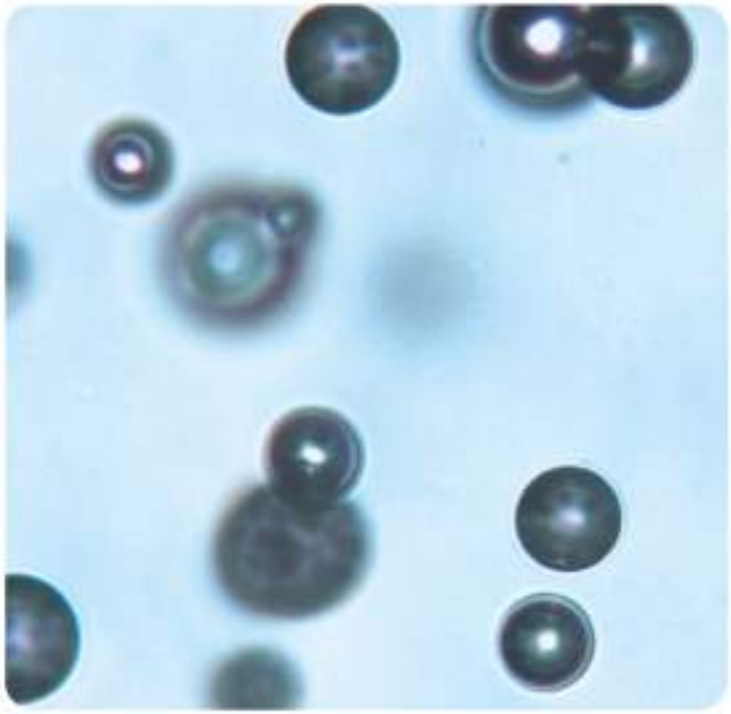
That's why Agriplast has developed a new generation of films that **filter NIR radiation**, while maintaining high light transmission where it matters most: **Photosynthetically Active Radiation (PAR).**

Glass Microspheres

Agriplast patented innovation

Standard diffuse films with mineral additives typically block around **25% of NIR.**

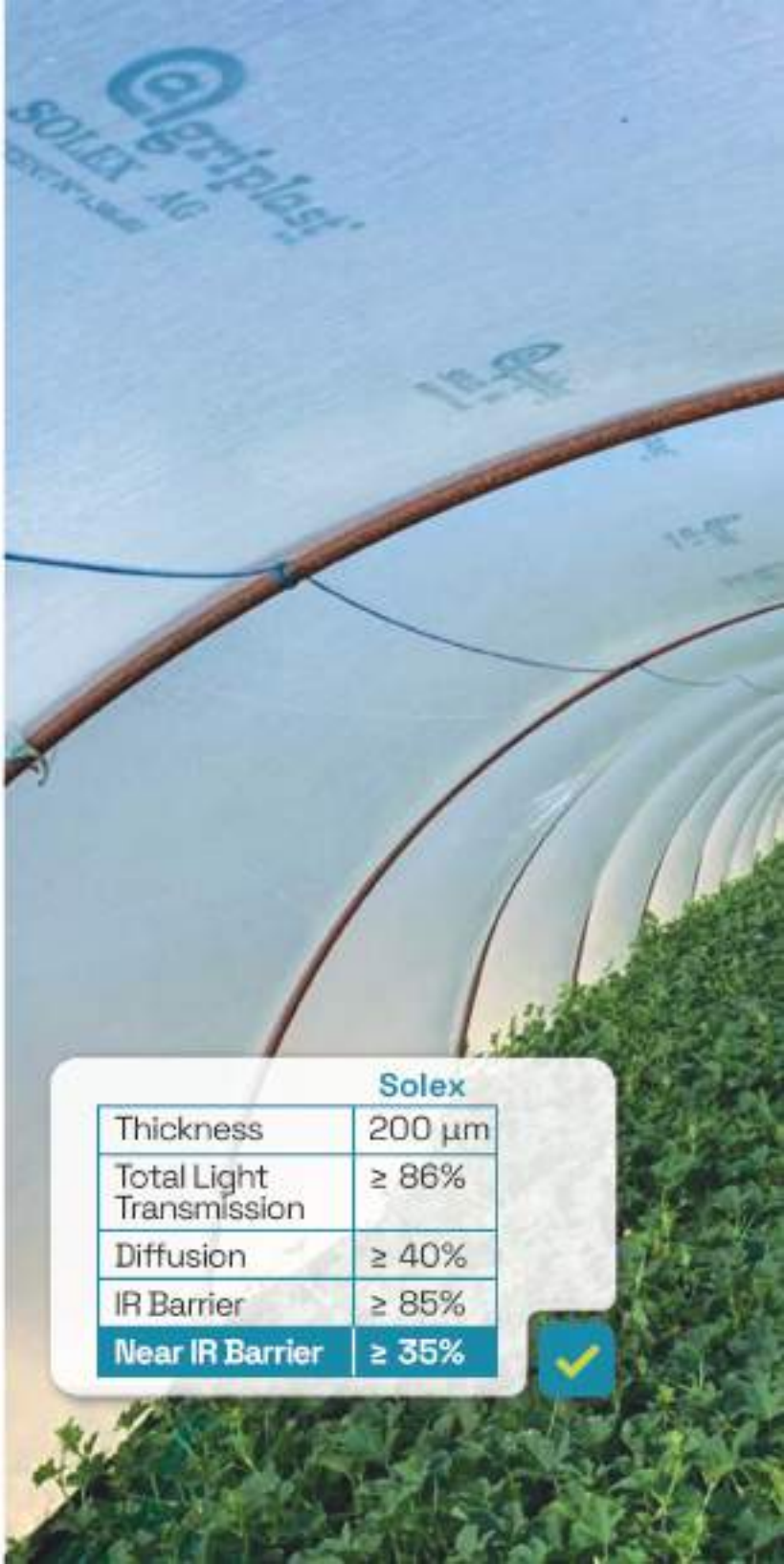
By using **glass microspheres,** Agriplast films achieve **significantly higher heat protection,** while still allowing optimal light diffusion and brightness inside the greenhouse.



Solex

The first film developed by Agriplast using **glass microsphere technology** was Solex. Over the years, it has consistently delivered excellent results thanks to its re**markable ability to distribute light evenly throughout the greenhouse.**

This innovative formulation has also enabled growers to **delay the use of shading systems** by several weeks compared to standard diffuse films, helping to maintain optimal light conditions and promote more uniform crop development.



	Solex
Thickness	200 µm
Total Light Transmission	≥ 86%
Diffusion	≥ 40%
IR Barrier	≥ 85%
Near IR Barrier	**≥ 35%**

Green Care

Building on the same technology, Green Care is a film specifically developed for **crops that are more sensitive** to excess heat and light.

Thanks to a combination of **hollow glass microspheres and a subtle green tint**, Green Care shields plants without the need for additional shading systems.

	Green Care
Thickness	200 µm
Total Light Transmission	≥ 71%
Diffusion	≥ 55%
IR Barrier	≥ 90%
Near IR Barrier	**≥ 85%**

Agri50 and Agri50 Pro

No shading, no compromises

Agriplast has developed Agri50 and Agri50 Pro as **the result of 50 years of research and innovation.**

	Agri50	Agri50PRO
Thickness	200 µm	200 µm
Total Light Transmission	≥ 84%	≥ 84%
Diffusion	≥ 65%	≥ 80%
IR Barrier	≥ 87%	≥ 91%
Near IR Barrier	**≥ 60%**	**≥ 75%**

Thanks to their **special formulation with hollow glass micro-spheres**, these films provide advanced heat protection while preserving outstanding optical performance.

First Field Trials of **Agri50**

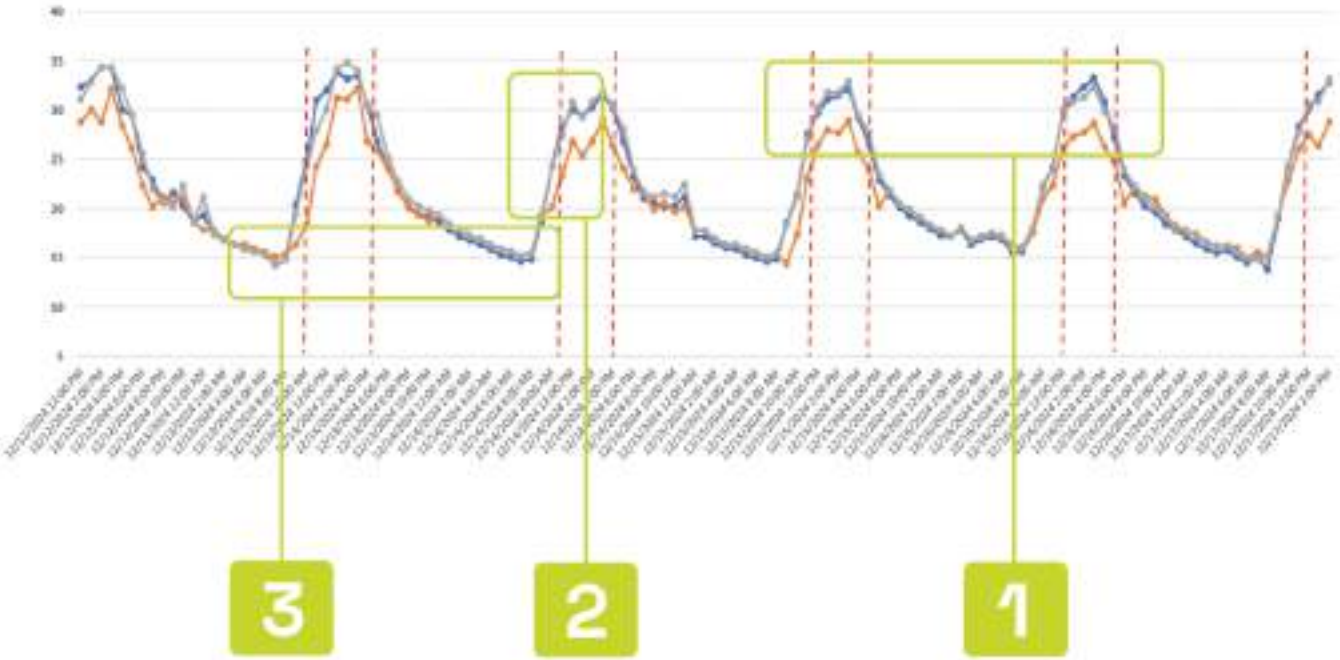
Initial field trials have shown very promising results:

1. **Maximum temperature reduced by an average of 4°C, even compared to whitened films.**
2. **Slower and more gradual temperature increase, improving the internal greenhouse microclimate.**
3. **No change in minimum temperature, ensuring stable growing conditions for crops.**

Diff Film

Diff Film + whitewashing

Agriplast Trial



Comparative Table

	Solex	Agri50	Agri50 PRO	Green Care	Conventional Diffused Film	80% Shaded Opaque Film
Thickness	200 µm	200 µm	200 µm	200 µm	200 µm	200 µm
Total Light Transmission	≥ 86%	≥ 84%	≥ 84%	≥ 71%	≥ 90%	≥ 33%
Diffusion	≥ 40%	≥ 65%	≥ 80%	≥ 55%	≥ 55%	≥ 33%
IR Barrier	≥ 85%	≥ 87%	≥ 91%	≥ 90%	≥ 90%	≥ 60%
Near IR Barrier	**≥ 35%**	**≥ 60%**	**≥ 75%**	**≥ 85%**	**≥ 25%**	**≥ 64%**

«The patented and exclusive formulation developed by Agriplast, which includes glass microspheres, delivers outstanding optical performance with significantly increased PAR light transmission compared to conventional instrumental measurements defined by current standards.»

Near IR Barrier

Benefits

- Lower shading costs
- Higher crop productivity
- Reduced water consumption

Solex

Agri50

Agri50 PRO

Green Care

agriplast®

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