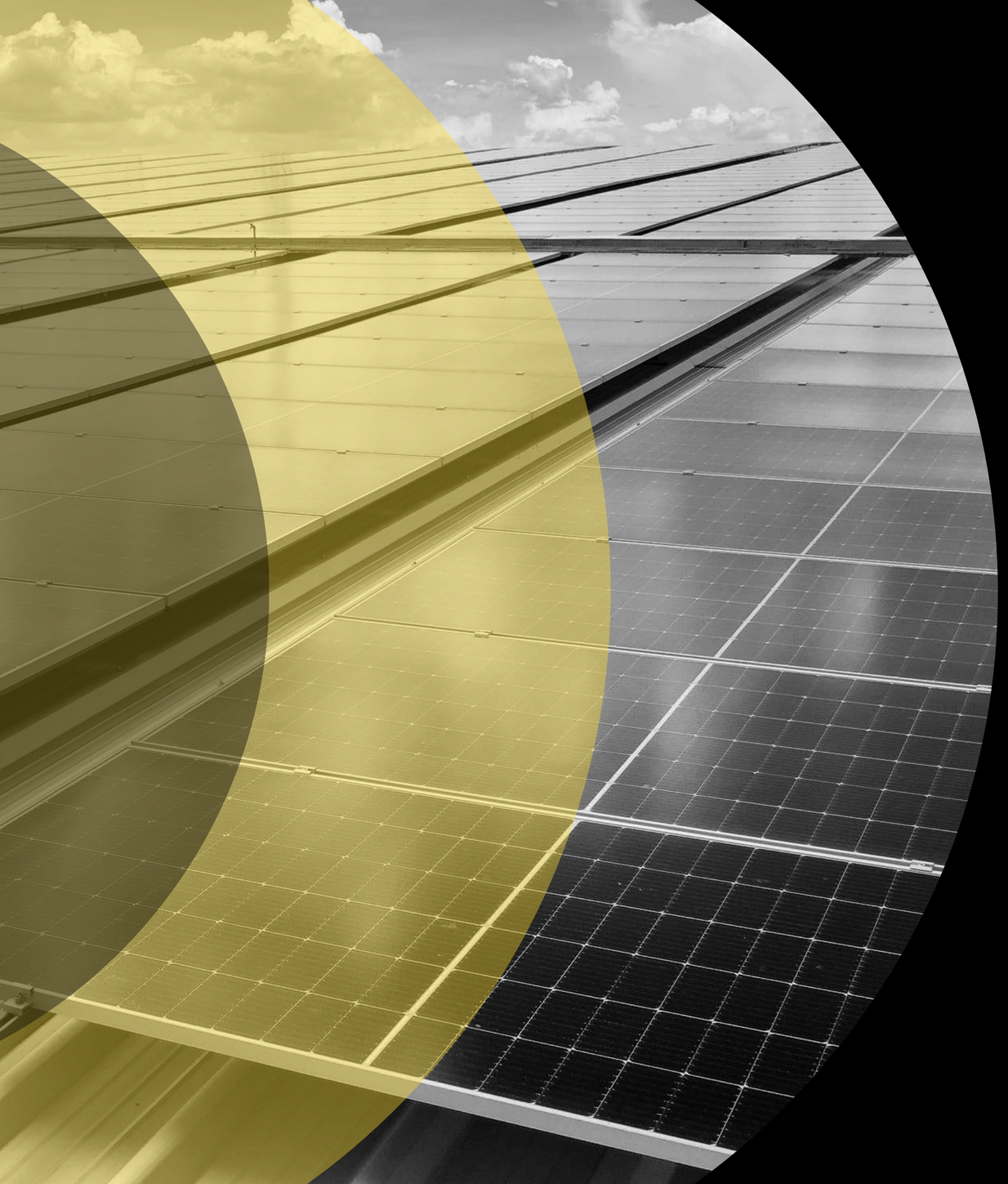


iSHINE® COATINGS GROUP

ANTI-REFLECTION COATING

www.ishinecoatings.com

Anti-Reflective Coating: What is it?

Definition of Anti-Reflective Coating: An anti-reflective coating is a thin layer of material applied to the surface of solar panels to reduce light reflection and increase efficiency. How Anti-

Reflective Coating Works: The anti-reflective coating works by altering the refractive index of the solar panel surface, decreasing the amount of reflected light and increasing the amount of light that penetrates the panel.

Types of Anti-Reflective Coatings: There are various types of anti-reflective coatings, including single-layer coatings and multi-layer coatings. Multi-layer coatings may be more effective in reducing reflection but are also more expensive.

Benefits of Anti-Reflective Coating for Solar Panels

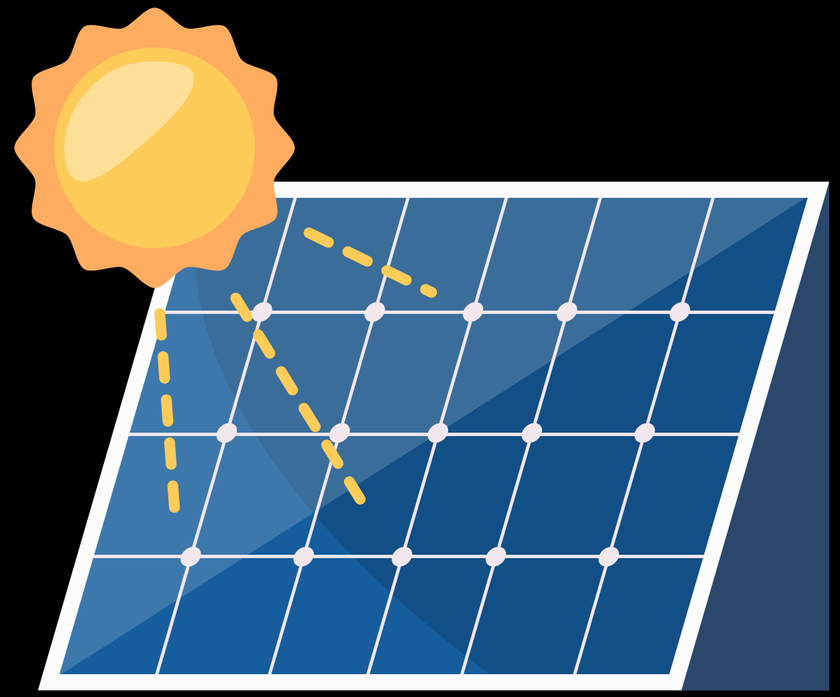
The anti-reflective coating for solar panels offers several significant benefits. Firstly, it can significantly increase the efficiency of the solar panel by reducing the amount of reflected light. This means that more light is absorbed by the panel and converted into energy, increasing the amount of energy that can be generated.

Secondly, the anti-reflective coating can extend the lifespan of the solar panel by protecting the surface from UV rays and other environmental damage.

Lastly, the anti-reflective coating can also reduce maintenance costs as the solar panel surface is easier to clean and maintain. Overall, the anti-reflective coating is a significant investment to enhance efficiency and extend the lifespan of solar panels, resulting in a higher long-term return on investment.

Product infos

By using an anti-reflective coating from iShine, it is possible to increase light absorption by 2.5%.



- Water-based
- Transparent
- Super hydrophilic
- Application through cleaning, rolling, or spraying - increase in transmission of up to 2.5%
- Non-corrosive Summary of benefits:
- Resistance to dirt even in desert regions
- Perfectly suitable for all types of photovoltaic modules
- Long durability in all weather conditions

Basic performance tests

Without Anti-Reflective Coating

Period 2022	String 4 (uncoated)	String 6 (uncoated)	Difference in performance 4 to 6
April 23 – May 27 (35 days)	26,299.73	27,679.85	-4.99%

With Anti-Reflective Coating

Period 2022	String 4 (coated)	String 6 (uncoated)	Difference in performance 4 to 6
May 28 – July 1 (35 days)	25,221.24	24,960.65	1.04%