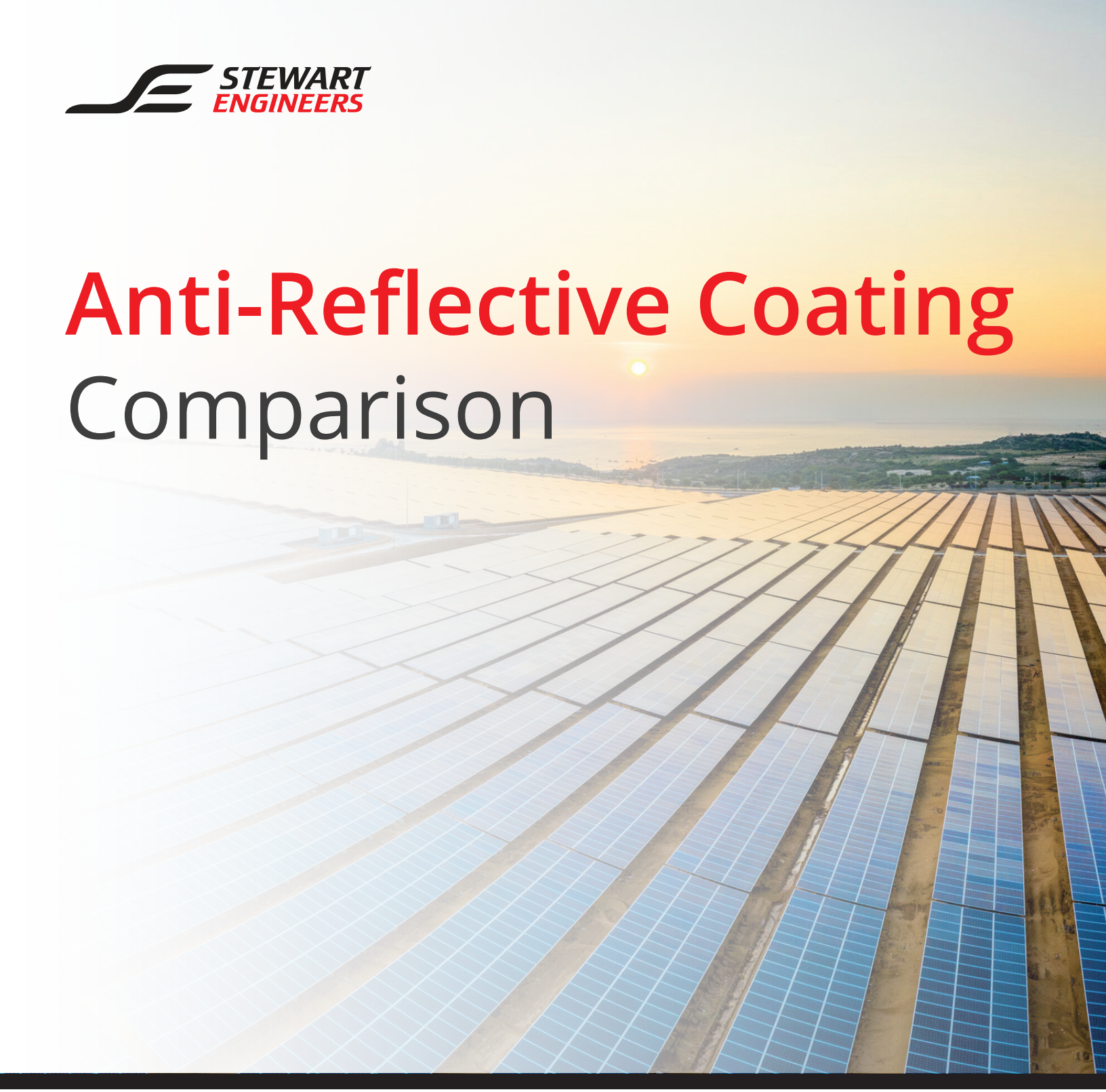
STEWART ENGINEERS

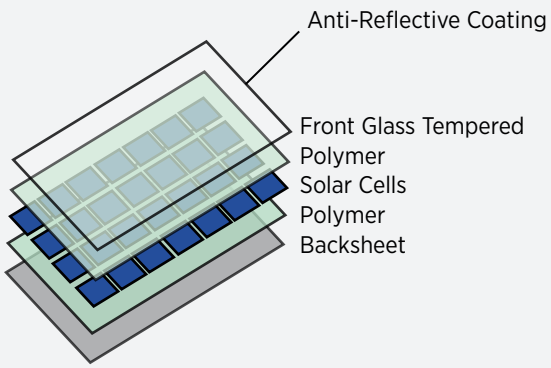
Anti-Reflective Coating Comparison

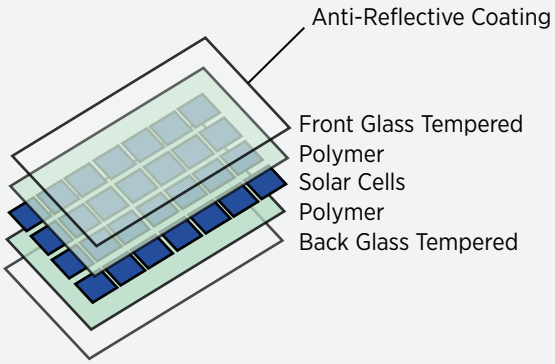


Solar Industry Standard ARC versus Stewart's New ARC

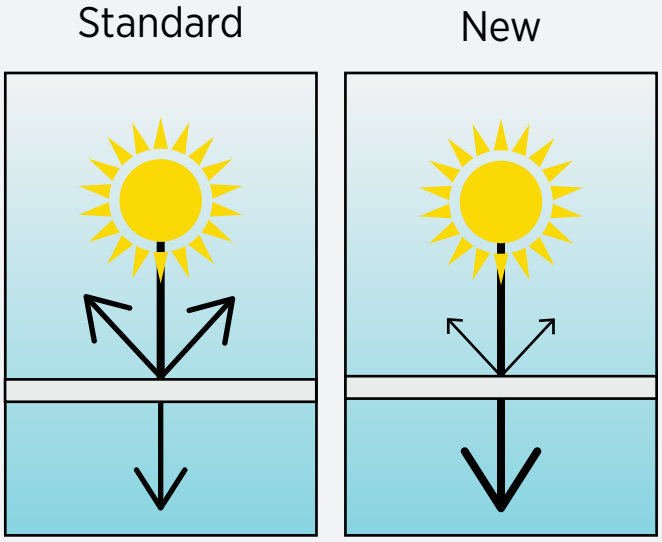
When comparing the New Anti-Reflective Coating (ARC) glass to Standard ARC glass, the New ARC offers clear advantages. It delivers higher light transmission and improved uniformity across the glass, significantly reducing issues related to color and edge effects, making it an excellent choice for solar applications. The durability of the New ARC is far superior, with no performance degradation observed under standard tests. In fact, the coating is more mechanically and chemically durable than the glass itself. The anti-reflective effect is also more pronounced at various angles, enabling modules to break thresholds earlier and later in the day. Additionally, both CAPEX and OPEX are lower for this product.

Solar Panel Construction





Coating Performance



91.5%	Glass Tvis
+ 2.0%	ARC Standard
93.5%	Total Tvis

91.5%	Glass Tvis
+ 3.5%	ARC New
95.0%	Total Tvis

Standard ARC Glass

- Less transmission gain
- Less mechanical durability
- Less chemical durability
- Coating color and edge effects
- Many coating processes to get production volumes
- Higher CAPEX
- Higher OPEX
- Limited capacity
- Excess capacity must be sold to competitors
- Commonly known product
- More manpower
- More production maintenance

New ARC Glass

- 1.5% more transmission than standard ARC
- Higher transmission at angle
- Superior mechanical durability
- Superior chemical durability
- No visible color or edge effect
- Lower CAPEX
- Lower OPEX
- High volume production
- Superior glass quality
- Less manpower
- Less maintenance
- Compatible with larger module sizes