Sunwire®
EVOLUTION

From soft – to softer

A solar ribbon's yield strength influences how much stress the soldered ribbon can cause on a silicon cell – the higher the stress, the higher the risk of fracturing the cell. Sunwire is available with yield strength lower than 50 N/mm^2, perhaps the softest solar ribbon on the market today.

From high power output – to higher power output

Luvata's reflective white ribbon, **Sunwire White**, reflects sunlight back towards the cell, increasing the power output of the module. Sunwire White makes better utilization of the entire busbar area.

From high elongation – to higher elongation

Elongation of the ribbon has a direct impact on the functionality of the module during its lifetime of operation. Elongation is primarily influenced by the temper (softness) of the ribbon, along with the copper core microstructure and the dimensions of the ribbon. High elongation values equate to greater ductility, or resistance to fatigue.

From gray monochrome – to full colour

For the architects who want to incorporate solar modules into their designs, but refuse to forego aesthetics, Luvata offers **Sunwire Deco** in various colours that don't distract from the beauty of their designs.

From straight – to straighter

As solar ribbon has become softer, maintaining low camber (straightness) becomes increasingly difficult. The evolution of Sunwire includes substantial reduction in camber, especially at the flanges of the spool. This, together with the extreme softness of the material, allows PV module manufactures to align the ribbon precisely over the busbars of the cell, enabling maximum electrical output.

From large – to larger spools

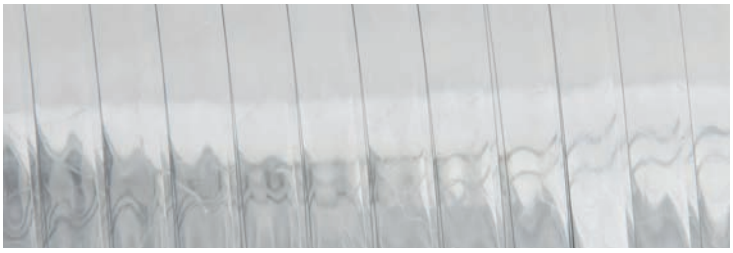
Sunwire spools have been getting bigger and bigger, to offer more of the continuous length, high-quality photovoltaic ribbon on one spool. Sunwire's fully-automated spooling process ensures that its winding is consistent from one spool to the next, resulting in reliable and predictable de-spooling for customers on their stringer machines. This gives less downtime and higher production output to the module production.

From one location – to four manufacturing locations

Today Sunwire is manufactured in Pori, Finland; Pasir Gudang, Malaysia; Appleton, Wisconsin USA; and Suzhou, China. Each of these manufacturing facilities has the same proprietary equipment and many of the same processes to deliver products of the exact and consistent quality that our customers have come to expect. Luvata's in-depth local knowledge and presence allow us to easily localise the product while saving on freight costs and delivery times. Our global team of metallurgists, process engineers and PV enthusiasts will continue to make the most of our testing, trials and successes to bring incremental improvements to the manufacture and efficiency of PV modules.

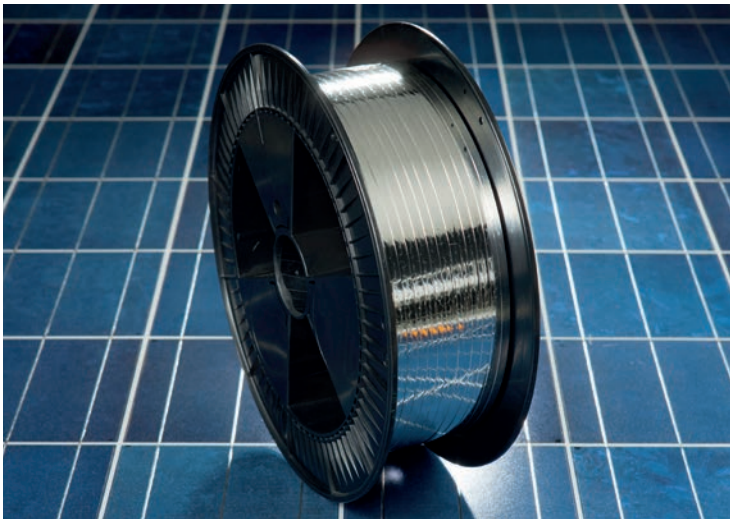
The evolution of Sunwire will continue.

Sunwire's evolution is the journey from where we began, to where we want to be in reaching grid parity and beyond. From a product that made the automated mass-production of photovoltaic solar panels possible, to the straightest, softest and flattest photovoltaic wires available on the market today. Sunwire continues to bring notable leaps forward in the evolution of photovoltaic wire.



Sunwire® photovoltaic wire

by LUVATA



www.luvata.com/sunwire

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