



Solar Impulse II

Solar Impulse II continues to break new ground for sustainable technologies as it completes its historic solar-powered flight around the world, and the same high-tech materials from Covestro that help to keep the plane in the air can be found all around you in your everyday life.

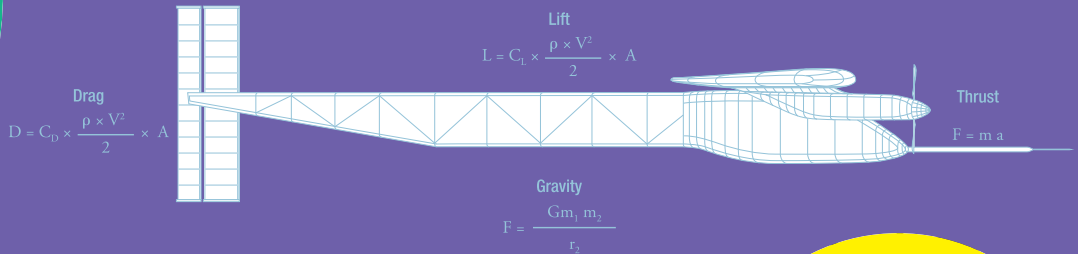
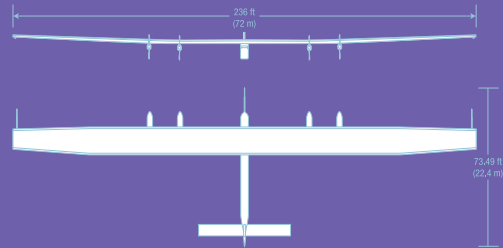
COCKPIT	WINDSCREEN (WINDSHIELD)	WINGS
<p>Highly insulative polyurethane foam encapsulates the cockpit, keeping the pilot comfortable in extreme temperatures as low as -40°C.</p>	<p>The multi-layer polycarbonate windscreen provides scratch-resistant, glass-like performance and thermal insulation at a fraction of the weight of glass.</p>	<p>Coatings and Adhesives from Covestro provide durability on the wings' surfaces and give them their beautiful and distinguishing silver finish.</p>
<ul style="list-style-type: none">• The polyurethane used for the cockpit insulation saves 70 times more energy than is used to make it.• Appliances, like refrigerators, use polyurethane insulation to keep food fresh and minimize energy use.• Commercial buildings and residential homes use variations of polyurethane foam as highly efficient insulation, even helping to achieve net-zero energy use buildings.	<ul style="list-style-type: none">• Lightweight and strong polycarbonate replaces traditional materials like glass and metals across many industries to increase energy efficiency.• Polycarbonate materials create energy savings when used in daylighting applications in buildings, such as for windows, doors, and roofing.• Polycarbonate applications in the automotive industry replace traditional materials, like glass and metal, to decrease vehicle weights, increase strength, and ultimately help increase fuel economy.	<ul style="list-style-type: none">• Resilient and durable polyurethane-based coatings, adhesives and sealants fortify and beautify a diverse range of products from cars, bridges and buildings, to furniture, floors and textiles.• Infrastructure, like bridges and buildings, stands the test of time when coated with durable Covestro materials.• Textiles are more beautiful and comfortable with polyurethane-based coatings, and Covestro is even developing a 65% bio-based solution.

Advanced Materials for Advanced Aviation

We never stop **working** toward new developments that **benefit** society and the **environment** to fulfil our vision of making the world a **brighter** place.

Solar Impulse II

Weight	5,100 lbs (2,300 kg)
Length	82 ft (25m)
Wingspan	236 ft (72 m)
Cockpit	134 ft³ (3.8 m³)
Solar Cells	17,248
Speed	30-60 mph



Covestro was responsible for the design and construction of the Si2 cockpit which utilizes the most advanced polyurethane and polycarbonate systems, significantly reducing the weight of the plane.

As more consumers seek energy-efficient products and governments start to implement the United Nation's Sustainable Development Goals in legislation, Solar Impulse will play a huge role in showing the world how the technology that exists today can contribute to achieving what many believed was impossible.

Technology developed for Solar Impulse is already used in various everyday products in the automotive and refrigeration sectors. In addition, coatings used on the plane are now also being used in many other industrial sectors.¹



We have 2,000+ product solutions right now. And there are more on the way. Discover how we make the world a brighter place at Covestro.com

¹ Covestro Press Release - November 26, 2015



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