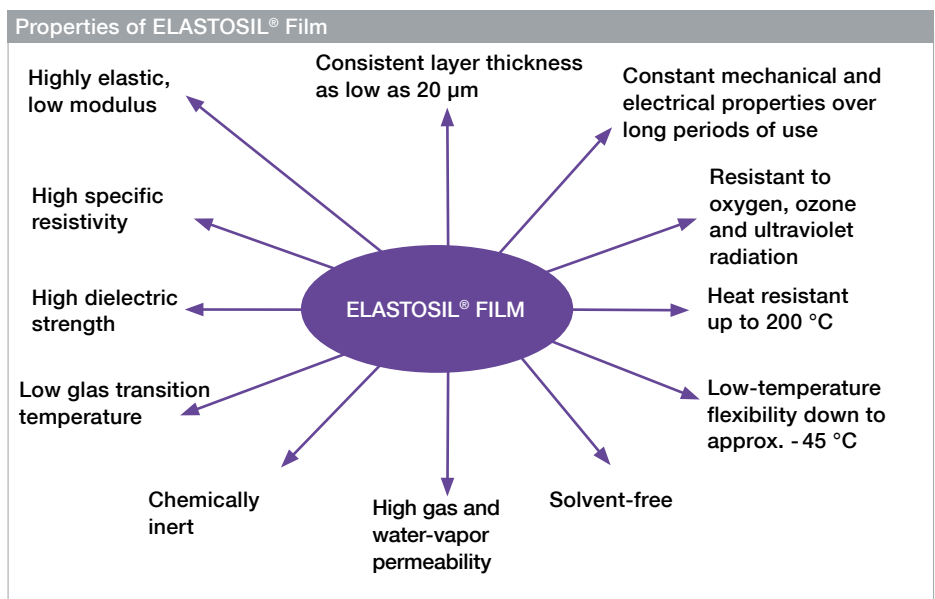


OUTSTANDING SILICONE PROPERTIES IN A NEW SHAPE: ELASTOSIL® FILM

The new ELASTOSIL® Film range of thin, 100% silicone films is a new form of presentation that greatly extends the reach of high-tech silicone technology and offers pioneering, key advantages.

New: Thin and Precise Silicone Films

Produced from addition-curing silicone rubber grades in a patent-pending process, ELASTOSIL® Film products from WACKER are silicone roll-stock films available in thicknesses as low as 20 micrometers. These 100% silicone films are manufactured under cleanroom conditions, which yields extremely homogeneous, flawless films of uniform thickness. The film thickness across the entire width and length of the film web deviates from the specification by no more than plus or minus 5 percent. At the same time, ELASTOSIL® Film products display all of the characteristics typical of silicone elastomers. This combination provides the key to technical applications that manufacturers have had difficulty achieving on an industrial scale, if at all.



ELASTOSIL® Film: Ideal for EAPs ...

ELASTOSIL® Film is especially suited for use as a dielectric medium in applications that employ electroactive polymers (EAPs), such as

- Actuator technology (“artificial muscle”)
- Generator technology (energy harvesting)
- Sensor technology (“smart sensing”)

... and beyond EAP

Since the novel ELASTOSIL® silicone films are highly transparent, chemically inert and highly permeable to gas and water vapor, even completely new applications in electronics, packaging, protective films and functional membranes are possible.

WACKER: Your Development Partner

WACKER is one of the world's largest silicone producers and most research-driven chemical companies. The Group's portfolio currently contains over 3,000 silicone products. WACKER can now produce the innovative silicone films of its ELASTOSIL® Film range on an industrial scale. We would be happy to give you the support you need for implementing your application concepts at any of our worldwide technical centers. Contact us at www.wacker.com/elastosil



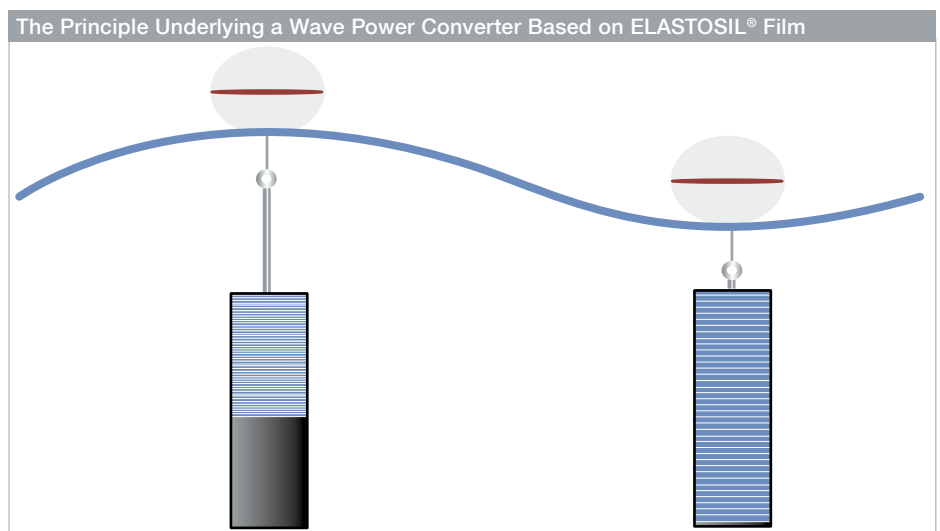
ELASTOSIL® FILM IN EAP APPLICATIONS. EXAMPLE: WAVE POWER PLANTS

From generators for wave power plants, to artificial muscles, to touch-screens for blind people: ideas for applying electroactive polymers (EAPs) are abundant. With ELASTOSIL® Film, WACKER shows how these ideas can become reality.

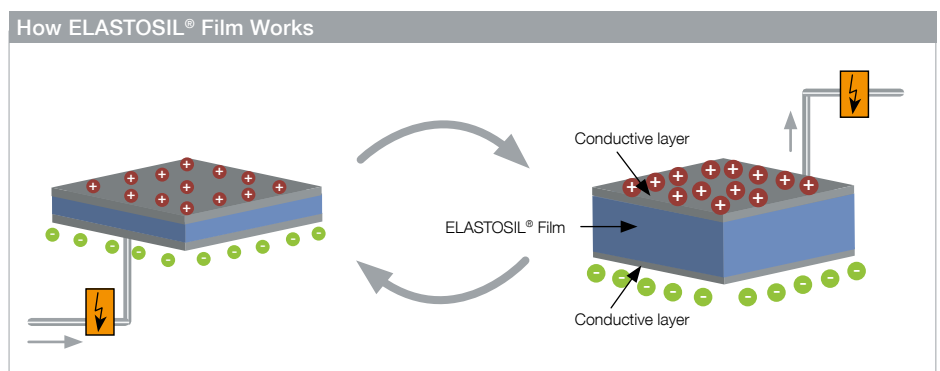
Waves: Energy Source of the Future

Waves hold more energy than was produced throughout the world in 2010. EPoSIL, a joint project sponsored by the German Federal Ministry of Education and Research, is dedicated to exploring ways of making efficient use of this energy. The first true-to-scale, miniature model of a wave generator using ELASTOSIL® Film is to be created at the Hamburg University of Technology in 2014.

Located on the seabed, the core of the energy converter contains stacks of thousands of silicone films made of ELASTOSIL® Film. These films each have a conductive layer and are connected to each other. The motion of the waves first presses the films together, which brings the two electrodes closer to each other. Voltage is then applied from an external source, and one of the electrodes becomes positively charged and the other negatively. In the wave trough, the sheets of ELASTOSIL® Film relax and expand again, causing the electrodes to separate. The mechanical energy from the wave is converted into electrical energy.



A buoy is connected to the generator. Within the generator, there are thousands of sheets of ELASTOSIL® Film that press against each other and then separate in response to the action of the waves.



ELASTOSIL® Film absorbs voltage at the wave crest. This energy is then drawn off in the wave trough. ELASTOSIL® Film serves as a dielectric medium, return spring and carrier for electrodes, ensuring durability over millions of cycles.



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The data presented in this information sheet are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this information sheet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.