

# PRESS RELEASE

Number 35

## COMPAMED 2021

### WACKER Presents Silicone Adhesive Gels for Wound Dressings and Wearables

**Munich, November 15, 2021 – At the medical technology trade show COMPAMED, the Munich-based chemicals group WACKER is presenting silicone adhesive gels and liquid silicone rubber for medical applications. In the case of adhesive gels, the focus is on SILPURAN® 2114 and SILPURAN® 2122. They permit reliable and skin-friendly fixation of wound dressings and therapeutic devices. Another product highlight is ELASTOSIL® LR 5040. This hyperpure liquid silicone rubber achieves high strength without the heat treatment normally used, making it efficient and economical to process. COMPAMED 2021 takes place in Düsseldorf, Germany, from November 15 to 18.**

SILPURAN® silicone adhesives have a proven track record as adhesive gels in professional wound dressings over many years. They adhere gently and securely to the skin and make changing dressings pain-free and atraumatic. This promotes healing while allowing gentle treatment of chronic and large-area wounds.

At COMPAMED 2021, the spotlight is on SILPURAN® 2114 and SILPURAN® 2122. As these silicone gels adhere strongly, they can

be used for professional wound treatment as well as for fixing plasters for longer-term positioning of dressings and medical devices.

SILPURAN® 2114 offers an adhesive strength of 3.5 Newton per inch and is thus the product of choice for plasters and wound dressings. SILPURAN® 2122 features even stronger adhesion: with an adhesive strength of 5.5 Newton per inch, the silicone gel can also be used as a fixing aid in wearables and other medical applications. With SILPURAN® 2122, base plates for colostomy bags, wearable sensors or dosing devices for dispensing medication can be gently and reliably fixed on the skin.

SILPURAN® 2114 and SILPURAN® 2122 are transparent and cure to form a soft, highly flexible material with a gel consistency. The silicone gel itself is water-repellent, but breathable thanks to its permeability to water vapor and gas, optimizing wound healing significantly. The products contain neither plasticizers nor stabilizers. They are chemically stable, aging resistant and can be readily sterilized with ethylene oxide.

Thanks to their strong adhesive properties, the gels are quite efficient in terms of usage. In most cases, only small amounts of coating are necessary for reliable positioning of wound dressings or plasters. Moreover, fixation aids that have been coated with SILPURAN® 2114 and SILPURAN® 2122 can also be easily stripped off and reapplied. An incorrectly bonded fixation plaster still adheres reliably to the skin even after correction.

**Optimum Combination of Release Film and Silicone Adhesive**

Wound dressings and fixation aids are generally supplied with release liners. They protect the adhesive layer against soiling and damage and are removed when used. However, high-strength adhesives can cause problems when, for example, the adhesive film is damaged as the liner is peeled off.

To ensure safe removal, WACKER coated several liners produced by US manufacturer Loparex with SILPURAN® 2114 and SILPURAN® 2122 and examined their release properties. The tests show that SILPURAN® 2114 can be readily used with selected polyolefine liners, while SILPURAN® 2122 performs best with fluorinated substrates. In all cases, the release force was below 0.5 N/in, which ensures reliable and complete removal of the liner. The long-term measurements WACKER conducted also speak for themselves: despite several months' storage, no increase of the release force values was measured. Wound dressings and fixation aids coated with SILPURAN® 2114 and SILPURAN® 2122 thus exhibit a long shelf life.

**ELASTOSIL® LR 5040 – Non-Postcure Liquid Silicone Rubber for Sensitive Applications**

WACKER is also presenting the ELASTOSIL® LR 5040 product line at COMPAMED. This liquid silicone rubber (LSR) meets strict regulatory specifications which apply to sensitive applications in medical and food-contact segments. Cured rubber products made of ELASTOSIL® LR 5040 feature excellent mechanical properties even without thermal postcuring and contain only very little amounts of

volatile and extractable substances. This allows manufacturers, in many cases, to eliminate postcuring during the production process.

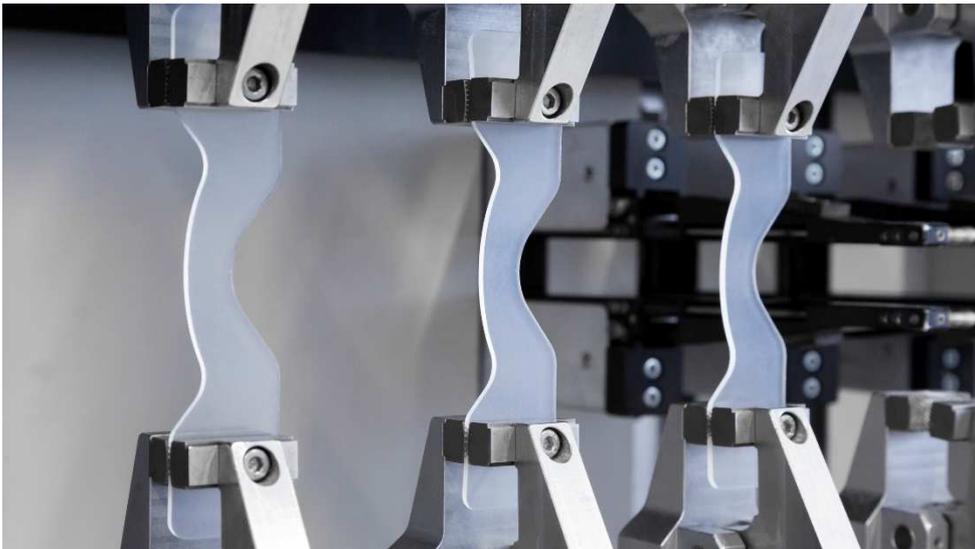
ELASTOSIL® LR 5040 cures to a translucent elastomer whose volatiles content is below 0.5 weight percent without thermal post-treatment. This was determined by in-house measurements following German Institute for Risk Assessment (BfR) procedures using two millimeter-thick LSR sheets heated up to 200°C for four hours. In addition, the tear strength of ELASTOSIL® LR 5040 products processed without postcuring exceeds that of postcured standard LSR grades. As a result, they can withstand mechanical stresses which may repeatedly occur in the usage of medical devices.

The ELASTOSIL® LR 5040 product line was recently complemented with a new grade and now covers the hardness range from 20 to 70 Shore A. In its cured state, the actual hardness of the non-postcured silicone elastomer deviates from the midpoint of the specification range by no more than three points. The product line can therefore be readily injection molded. Eliminating postcuring of silicone rubber components also creates significant streamlining and automation potential in the manufacturing process, particularly if located in a cleanroom environment, and facilitates rapid, efficient and cost-effective large-scale production.

Visit WACKER at COMPAMED 2021 in Hall 13, Booth E79 and have a look at our website at [www.wacker.com/compamed](http://www.wacker.com/compamed).



At this year's COMPAMED, the Munich-based chemicals group WACKER is presenting the silicone adhesives SILPURAN® 2114 and SILPURAN® 2122. Thanks to their high adhesive strength, these silicone gels are not only suitable for use in wound dressings, but also for fixation of wearable medical devices. (Photo: WACKER)



At COMPAMED 2021, Munich-based chemical company WACKER is presenting ELASTOSIL® LR 5040 liquid silicone rubber. The product features high tear strength after curing without thermal treatment. (Photo: WACKER)

Please note:

These photos are available for download at:  
<http://www.wacker.com/pressreleases>

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**The company in brief:**

WACKER is a global chemical company with some 14,300 employees and annual sales of around €4.69 billion (2020). WACKER has a global network of 26 production sites, 23 technical competence centers and 52 sales offices.

**WACKER SILICONES**

Silicone fluids, emulsions, rubber grades and resins; silanes; pyrogenic silicas; thermoplastic silicone elastomers

**WACKER POLYMERS**

Polyvinyl acetates and vinyl acetate copolymers and terpolymers in the form of dispersible polymer powders, dispersions, solid resins and solutions

**WACKER BIOSOLUTIONS**

Biotech products such as cyclodextrins, cysteine and biologics, as well as fine chemicals and PVAc solid resins

**WACKER POLYSILICON**

Polysilicon for the semiconductor and photovoltaic industries