

# TEGO® RC Silicones

## Release Coatings for Hygiene Applications



## Introduction

**A perfect release coating is essential for the reliable function of diaper tapes, feminine care products and other self-adhesive applications in the hygiene industry.**

Evonik UV radical curing silicones offer many advantages for the production and use of these products. UV curing and coating with TEGO® RC Silicones at room temperature means less consumption of energy and no stress to the substrate allowing for the use of all manner of heat sensitive materials. Paper shows excellent lay-flat behavior. Thin gauge substrates, recycled material, non-wovens and even plant based substrates can all be coated successfully.

TEGO® RC Silicones are one-hundred percent active materials as they are solvent free. In conclusion, TEGO® RC Silicones offer advantages to the environment as well as efficient production.



# TEGO® RC SILICONES FOR HYGIENE PRODUCTS

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**TEGO® RC Silicones are used as a functional release coating on all kind of plastic materials which are necessary for the production of self-adhesive hygiene products, e.g. diaper tapes and feminine care products.**

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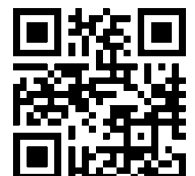
Substrates used are plain films, matted materials, embossed substrates, even highly sophisticated non-woven materials along with many more. Coat weights of silicone coatings differ from very low for filmic products to high for open surface structure materials as non-wovens.

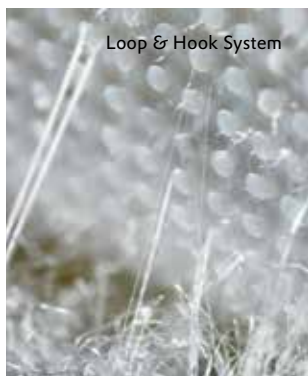
For the process of siliconizing it is important to have silicone products with

easy handling, good processability, and consistent final properties that are also economically viable. Customer and application tailored blends provide an excellent processing performance and a wide range of final release properties for all kinds of self-adhesive products. Typically a silicone release coating consists of a release component, anchorage component and a photoinitiator. By changing the ratio of the individ-

ual components, the release values can be adjusted. In addition one component systems are available without the need for blending and mixing prior to use. All TEGO® RC Silicones are suited for high speed coating, in-line processes, lamination, and slitting operations with optimized performance by RC silicone formulation know-how.

Please follow the link to obtain more details about our product portfolio:  
[www.evonik.com/rc-overview](http://www.evonik.com/rc-overview)





## DIAPER TAPES

Modern, disposable diapers are a complex and highly technical combination of various materials and technologies. Diapers have a long history in baby care and experience strong growth recently in the adult incontinence market. A reliable and easy-to-use closure system is a key element for all diaper applications. These multi-layer tape laminates are usually a tailor-made combination of several mono tapes.

TEGO® RC Silicones have been used for several generations of diaper tapes; beginning with paper tapes, for simple and multi-layer polymeric fastening tapes, as an unwind aid of the landing zone tape, and for loop & hook systems made of polypropylene.

Although invisible, silicone release coatings are essential for the proper function of the closure systems of both tape and mechanical fastening systems. The right

choice of the silicone guarantees a successful converting process and a fault free final application of the diaper.

Multi-Layer Adhesive Tape



Single wrap packaging sanitary napkins

### **SANITARY NAPKINS**

Beneath multiple piece packagings, single wrap packaging of sanitary napkins and panty liners gain increased usage in the feminine hygiene market. Single packaging offers discretion and hygienic transport of the napkin. Moreover it can be used as packaging of used pads when disposed of.

A further demand of the consumers requires that the napkin is released from

the pouch without noise which needs a smooth release coating on the inside of the packaging.

Evonik UV curing silicones offer outstanding compatibility with different adhesives and substrates. The UV technology enables the use of very thin embossed or flat plastic films like 16  $\mu$  LDPE (Low density polyethylene). With standard coating equipment considerable low coat weights can be achieved.

In addition, Evonik UV silicones can be used as release coatings for paper type panty liners and protect the adhesive on the backside of these. For porous paper substrates products are available with reduced penetration behavior leading also to low coat weights.



TEGO® RC radical curing silicones are chemically robust and, therefore, can even be used on printed surfaces, paper and plastic films, without interference of the release properties or adhesion to the substrate.

#### **OTHER HYGIENE PRODUCTS**

There are many self-adhesive products available in the hygiene industry that require a release coating on paper, plastic film, or other substrates such as non-woven.

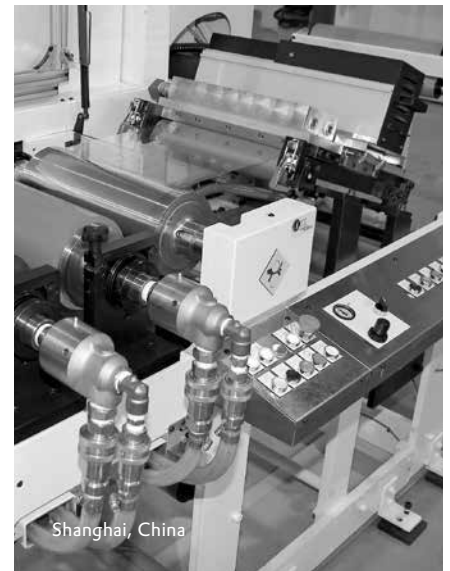
Our technical service offers support and assistance to develop customer specific formulations.

#### **HEALTH & SAFETY**

As required by hygiene product manufacturers, many of our products have food contact approval (ISEGA, FDA/FCN) when formulated as specified.



# TEGO® RC SILICONES STAND FOR FACE-TO-FACE PERFORMANCE



Evonik has multiple locations equipped with pilot lines and laboratory testing facilities in all regions.

In conclusion the Evonik TEGO® RC Silicone team offers support to fine-tune your developments and recommends specific formulations optimizing the release force and other attributes for your specific need.

## **OUR GLOBAL RC SILICONE TEAM WILL ASSIST WITH**

- Training and assistance in application & processing of the TEGO® RC Silicones coating
- Technical service during start-up phase and on-going production
- Utilize our wide network of contacts to equipment and machine suppliers
- Innovative developments for future challenges
- Long-term relationships based on trust

More information  
can be found on  
the global web  
page:

[www.evonik.com/  
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