

Product Specification

TEGO® RC 1904

TEGO® RC 1904 is a solvent-free, UV curing silicone acrylate release coating for premium release in high speed applications.

TEGO® RC 1904 is a “ready-to-use” one-component blend with TEGO® Photoinitiator A 18.

Physical properties

		Remarks
Release properties	premium/easy	-
Active matter	100 %	Volatile content < 1 %
Viscosity, 25 °C (77 °F)	~ 300 mPas	The viscosity of TEGO® RC 1904 can be reduced considerably by “warm” application at 40°C to 60°C
Specific gravity, 25 °C (77 °F)	approx. 1 g/cm ³	-
Colour	beige	The colour of our TEGO® RC Silicones is absolutely irrelevant as to their efficiency/properties, as guaranteed by our test certificate
Appearance	opaque	-
Flash point (DIN 51758)	> 100 °C (> 212 °F)	-
Guaranteed pot life	12 months	TEGO® RC 1904 must be stored in the dark, at temperatures not exceeding 30 °C (86 °F). The bath life of TEGO® RC 1904 can be as long as the storage stability if it is handled properly. Please stir and test before using the material again.
Inerting	necessary	UV curing requires inerting by nitrogen to < 50 ppm residual oxygen in the curing chamber.

Application fields

TEGO® RC 1904 is used in the manufacturing of release coatings with premium release properties for self-adhesive products, like e. g.:

- Self-adhesive labels with a medium to high opening speed of the laminate, such as auto applied labels,
- Hygiene applications with easy release requirements
- and many more

Advantages

TEGO® RC 1904 is easy to use as it is pre-mixed in the right ratio incl. Photoinitiator TEGO® A 18.

It can be used on both film substrates and standard base papers. It has an efficient anchorage component added that ensures good keying to all common substrates.

The low viscosity allows coating with most printing technologies and common silicone coaters.

Dosage/Handling

As a ready-to-use blend, TEGO® RC 1904 can be used as supplied. Addition of TEGO® RC 711 or TEGO® RC 722 is not necessary. TEGO® RC 1904 provides good anchorage to many substrates i. e. plastic films and papers.

TEGO® RC 1904 will remain a stable mixture for many hours. However, it will separate on standing for a long time. The entire content of the drum or pail must be stirred well before removing any material. To facilitate this, extra headspace has been left in the drum.

To avoid separation in the holding tank next to the coating line a stirrer with moderate revolution should be equipped. After a break the agitation prior to use is necessary.

TEGO® RC 1904 is covered by an international patent application of Evonik Industries AG.

Suitability tests

Before using any new silicone formulation, we recommend checking that the final product meets the target requirements.

This includes but is not limited to:

- Compatibility of release coating against targeted adhesives using aging tests at both low and high temperatures.
- The influence of electron beam or Gamma irradiation on aging and release, e. g. sterilization.
- The influence of secondary UV exposure on release and aging, e.g. when curing UV printing inks on label stock with a clear face stock.

Thermal aging or post-irradiation may cause a property change in the final product.

Storage stability

It is recommended that TEGO® RC 1904 is stored in the dark, at temperatures not exceeding 30 °C (86 °F).

Under these conditions, the storage stability of TEGO® RC 1904 is 12 months (subject to storage in original, sealed containers).

Packaging

175 kg (385 lbs) plastic lined steel drums filled in 200 kg (440 lbs)
Pallet size: 4 x 175 kg = 700 kg

800 kg (1 764 lbs) container filled in 1000 kg (2 205 lbs)

Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in case of accidents and fire
- toxicity and ecological effects

is given in our material safety data sheets.

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