

Product Specification

TEGO® RC 1772

Product description

TEGO® RC 1772 is a solvent-free UV curing silicone acrylate release coating with matt surface and low COF for paper and film.

Physical properties

Active matter	100 %
Volatile content	< 1 %
Viscosity, 25 °C (77 °F)	~ 350 mPas shear thinning
Specific gravity, 25 °C (77 °F)	~ 1 g/cm ³
Colour	Greyish
Appearance	Opaque
Flash point (DIN 51758)	> 100 °C (> 212 °F)

TEGO® RC 1772 is a "ready-to-use" one-component blend of 8 % of treated silica with sizeable particles, 65 % TEGO® RC 706, 25 % TEGO® RC 711 and 2 % TEGO® Photoinitiator A18.

UV curing of TEGO® RC 1772 requires inerting by nitrogen (< 50 ppm residual oxygen in the curing chamber).

Application fields

TEGO® RC 1772 is used in the manufacturing of release coatings with easy release properties. For example:

- Self-adhesive labels
- Self-adhesive tapes
- Hygiene products
- Many others

Advantages

The release value of TEGO® RC 1772 (100 %) is comparable to a blend of TEGO® RC 706/TEGO® RC 711 65:25 (controlled release).

TEGO® RC 1772 -release coatings give very matt surfaces and, at high coat weights, a kind of soft-touch texture. The resulting COF will be very low.

TEGO® RC 1772 can be used as an additive to other RC formulations to impart matt surfaces and low COF.

Dosage/Handling

As a ready-to-use blend, TEGO® RC 1772 can be used as supplied.

A matte surface and appreciable reduction of the COF can be accomplished by using TEGO® RC 1772 as an additive in a blend with other free radical curing RC Silicones. Typical additions would be 5 – 40 % of TEGO® RC 1772.

TEGO® RC 1772 will separate on standing and must be stirred prior to use. The entire of the content of the drum must be stirred well before removing any material. To facilitate this, extra headspace has been left in the drum. We recommend keeping the silicone blend in the holding tank constantly stirred, to maintain an even silica distribution.

The bath life of TEGO® RC 1772 can be as long as the storage stability if it is handled properly. This also applies to blends of TEGO® RC 1772 with other RC Silicones. All blends need proper stirring prior to application.

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.

Note: This silicone contains particles that can reduce silicone misting as thought in US6511714. Without such particles, RC Silicones do not show silicone misting typically at speeds below 400 to 500 m/min. If TEGO® RC 1772 or blends containing TEGO® RC 1772 are coated at higher line speeds, US6511714 must be considered.

Storage stability

It is recommended that TEGO® RC 1772 is stored in the dark, at temperatures not exceeding 30 °C (86 °F).

Under these conditions, the storage stability of TEGO® RC 1772 is 6 months (subject to storage in original, sealed containers).

Packaging

20 kg (44 lbs) plastic drums
filled in 25 kg (55 lbs)
Pallet size: 8 x 20 kg = 160 kg

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

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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