Product Information

TEGO® RC 1442

PRODUCT DESCRIPTION

TEGO® RC 1442 is an UV curable solvent-free epoxy silicone release coating for paper and film. TEGO® RC 1442 is used to provide very easy release values.

Typical Properties

Property	Unit	Value
Activity	%	100
Appearance		Clear
Color		Yellowish
Flash Point, min. DIN 51758	°C	101
Specific Gravity at 25 °C (77 °F)	g/ml	1.0
Viscosity at 25 °C (77 °F)	mPa·s	250-450

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

TEGO® RC 14xx is a series of cationic curing solutions that work alongside the TEGO® RC Silicone acrylates (RC 700/900 series) for UV/EB curing. When inerted UV curing units are not available or the release coating requirements are specific, cationic curing silicones can be used for certain applications.

Product Composition

Product Composition	Unit	Value
Active Content	wt%	~100
Volatile Content, max.	wt%	1

The data represents typical values (no product specification)

BENEFITS & ADVANTAGES

- Easy to handle and use
- Inerting not required
- Low temperature impact to substrates
- Low extractables
- Stable release from most PSA's
- Low release values
- Sensitized for faster cure speed

DOSAGE

TEGO® RC 1442 can be UV cured by adding 1 to 3% of the cationic photoinitiator TEGO® PC 1467. It has good adhesion on all substrates, which can be improved by corona pre-treatment.

The sensitizer ITX is present in TEGO® RC 1442, resulting in improved cure speed and reliability.

Controlled increase of release value is possible by adding TEGO® RC 1412, with the necessary addition level depending on the application. Prior to application, all blends should be stirred.

The pot life of TEGO® RC 1400 series silicones with TEGO® PC 1467 added is at least 72 hours if stored properly, avoiding exposure to sunlight and heat. Maximum bath life can be longer but is highly dependent on local storage conditions, particularly temperature.

HANDLING & PROCESSING

The cationic curing mechanism of TEGO® RC 1442 does not require nitrogen inerting and can be cured under atmospheric conditions.

Cationic curing systems require the photoinitiator TEGO® PC 1467. The photoinitiator may be poisoned by alkalines, sulphur, phosphorous, amine and other components. The cure speed and release properties are therefore dependent

on the curing conditions, the choice of substrate and the adhesive system.

Very low or very high humidity may also have an influence on the possible cure speed and the release properties.

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 ageing 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

PACKAGING

25 kg (55 lbs.) in PE canister 30 l

pallet size: 12 x 25 kg = 300 kg

200 kg (440 lbs.) in steel tight-head drum 200 l

pallet size: 4 x 200 kg = 800 kg

1 000 kg (2 200 lbs.) in PE IBC 1000 l

SHELF LIFE

TEGO® RC 1442 should be stored in the dark at temperatures below 30°C (86 °F). Keep oxidizing, acidic or alkaline substances away from TEGO® RC Silicones. The guaranteed shelf life is 24 months, when stored under these conditions and in original sealed containers.

HAZARDOUS SUBSTANCE

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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