

TEGO® Photo Compound PC 1467

Product description

TEGO® Photo Compound (PC) 1467 is a solvent free product, especially developed for UV curing of the cationic TEGO® RC 1400 Silicone Release series.

Physical properties

Active matter	50 %
Viscosity, 25 °C (77 °F)	~230 mPa*s
Specific gravity, 25 °C (77 °F)	~1,0 g/cm ³
Colour	amber
Appearance	clear to slightly turbid
Flash point (DIN 51758)	> 100 °C (> 212 °F)

TEGO® PC 1467 is a 50 % solution of iodonium salt in a reactive diluent. It is a photo-acid generating catalyst which does not require nitrogen inerting during the photocuring process.

Application fields

TEGO® PC 1467 is used for the manufacture of release coatings with easy to tight release properties for self-adhesive products, e. g. self-adhesive labels, tapes and hygiene products.

Advantages

TEGO® PC 1467 offers high curing speeds and excellent compatibility with all cationic curing silicones of the TEGO® RC 1400 series. There is no benzene emission during the photocuring reaction.

- Good compatibility with non-polar cationic curing silicones
- Fast curing with standard UV lamps
- No nitrogen inerting
- Low temperature impact to substrates
- Long shelf life
- Easy to handle
- No benzene emission
- Contains no sensitizers

Dosage/ Handling

The recommended dosage of TEGO® PC 1467 is 1 to 2 % for filmic and 2 to 3 % for paper substrates. Blends of TEGO® RC 1400 Silicones and TEGO® PC 1467 require adequate stirring prior to application. The pot life of TEGO® RC 1400 series silicones with TEGO® PC 1467 added is minimum 72 hours if stored properly (avoid exposure to sunlight and heat). Maximum bath life can longer but is very dependant on local storage conditions.

The efficiency of TEGO® PC 1467 can be affected by e. g. alkalines, sulphur, phosphorous, amines and other components. Make sure that substances that can poison the catalyst are not present during storage, mixing and application of all components of the cationic curing TEGO® RC 1400 series. Performance is also influenced by substrate and curing conditions, and may result in varying release and curing.

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

Standard UV lamps such as arc lamps or microwave lamps can be used. One 120 W/cm (300 W/in) arc lamp typically yields line speeds of 100 – 200 m/min.

Because environmental conditions can reduce the line speed, individual tests are necessary to identify the lamp power, line speed and photo compound concentration for a given 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 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 ageing or post-irradiation may cause a property change in the final product.

Storage stability

TEGO® PC 1467 should be stored in the dark at temperatures below 30 °C (86 °F). Keep oxidizing, acidic or alkaline substances and water away from TEGO® RC Silicones (1400 Series) and TEGO® PC 1467.

The guaranteed shelf life is 12 months, when stored under these conditions and in original sealed containers.

Packaging

1 kg (2.2 lbs.) plastic bottles
20 kg (44 lbs.) plastic containers

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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