

TEGO® RC 351

TEGO® RC 351 is a solvent-free trifunctional acrylic monomer which can be polymerised by free radical curing. It is used in combination with TEGO® RC Silicones to provide special properties.

The addition of TEGO® RC 351 to RC Silicones can improve the silicone anchorage and reduce the viscosity of the blend.

Physical properties

		Remarks
Release properties	no release	Mainly used as anchorage additive
Active matter	100 %	Volatile content < 1 %
Viscosity, 25 °C (77 °C)	~ 100 mPas	-
Specific gravity, 25 °C (77 °F)	approx. 1.1 g/cm ³	-
Appearance	Clear	-
Flash point (DIN 51758)	> 100 °C (> 212 °F)	-
Guaranteed pot life (with photoinitiator included)	min. 72 h	RC Silicone blends with photoinitiator added must be stored in the dark at temperatures not exceeding 30 °C (86 °F). Under these conditions the pot life can reach 12 months. Please stir and test before using the material again.
Inerting	necessary	UV curing require inerting by nitrogen to < 50 ppm residual oxygen in the curing chamber.

Application fields

TEGO® RC 351 can be added to blends of RC Silicones to improve the silicone anchorage on difficult substrates. In-line corona treatment of the substrate should be applied as well to get best silicone anchorage results.

In some cases, TEGO® RC 351 can also be used to improve the hardness of a silicone coating or reduce the viscosity of mixtures with TEGO® RC Silicones.

Advantages

TEGO® RC 351 blends well with TEGO® RC 711 and other RC Silicones. Nevertheless, stirring is necessary prior to application when used in combination with other TEGO® RC Silicones.

The effect on release performance of the RC Silicones will be minimized compared to addition of other functional acrylic monomers.

Dosage/Handling

To guarantee a good anchorage on the relevant substrate surface, an addition level of min. 30 % of TEGO® RC 711 is usually added to a RC Silicone formulation. In applications, where the addition of TEGO® RC 711 does not help to get good anchorage, TEGO® RC 351 can be used to a maximum addition level of 10%. Higher levels (more than 10 % TEGO® RC 351) will have a more pronounced effect on the release value and ageing stability.

TEGO® RC 351 will replace an identical amount of TEGO® RC 711 in the formulation. If 10 % TEGO® RC 351 is added to RC Silicones, the content of TEGO® RC 711 should be reduced by 10 % in the formulation.

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

It is recommended that TEGO® RC 351 is stored in the dark at temperatures not exceeding 30 °C (86 °F).

Under these conditions the storage stability of TEGO® RC 351 is 6 months subject to storage in original, sealed containers.

Packaging

25 kg (55 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.

07/2015

Trademark notice and legal notice

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(Status: July 2015)

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