

Vitralit® UC 1609 is a uv-curable compound for opto-eletronic components like LED and VCSEL.

The product features excellent transmission in the area of 650-1300 nm, as well as ionic pureness, non-yellowing and exceptionally thermal shock resistance (-55° C / + 125° C).

The low a-value results from nanoscalic SiO2 fillers, without affect to the the optical properties. The product has been developed during the EU-Growth programme under the project OPECO (Nr. CSG-2001-40346) and has also been specified for applications in the aerospace field.

Storage stability: In closed original trading units at 5 °C without UV- influence for 6 month

Technical Data

Color	transparent
Resin	epoxy
Filler	approx. 25% SiO2-Nanopartikel

UNCURED PROPERTIES

Viscosity (Brookfield LVT/25°C) [mPa*s]	PE-Norm P001	3000 to 5000
Flash point [°C]	PE-Norm P050	> 95
Refractive Index [nD20]	PE-Norm P018	1.487

Curing

UV(UV-A >100mW/cm² Thickn.st. 1mm): [sec.]	PE-Norm P002	120
Thermal Curing 120°C :[Min]	PE-Norm P035	15
Full Strength [hours]	PE-Norm P032	after 24

CURED PROPERTIES

Temperature Resistance [°C]	PE-Norm P030	-55 to 175
Hardness Shore D	PE-Norm P052	70 to 80
Water Absorption [Gew-%]	PE-Norm P053	< 0,34
TG DSC [°C]	PE-Norm P009	80 to 90
Thermal Expansion [ppm/K]	PE-Norm P017	27

Our data sheets have been compiled to the best of our knowledge. The information included in our data sheets is exclusive information for the tended user and describes characteristics, with no declaration of commitment. We recommend trials in order to confirm that our products satisfy the particular application requirements. For an additional technical consultation, please contact our RD department. In general, for guarantee claims, please refer to our standard terms and conditions.

Adhesives
and more...

Mechanical Data

E-Modul [MPa]

[PE-Norm P056]

3425

Instructions of use of filled Vitralit UV epoxy

- store at max. 5 °C
- warm up to room temperature before usage
- dispensable, filled systems are use at machines from e.g. Mühlbauer, Schiller, Esec or

Ruhamat

- surface must be clean and dry and free from fat and parting agents

For curing UV- light at wavelength from 315 - 400 nm is needed. The curing time depends on:

- * emission spectrum and energy of emitter, min 30mW/cm²
- * distance to substrate
- * ageing of emitter
- * layer thickness
- * material influence like reflection, adsorption and UV- diaphaneity

This is a dual curing product, which means in deep layers or shadowed areas it can be cured by thermal heating.

Adhesives
and more...