

Vitralit® 1650 is a developed Glob-Top - especially for the chip resist - on the basis of epoxies. One of the remarkable features of the Vitralit® 1650 is its special purity and its low ionic concentration (Na<sup>+</sup>,K<sup>+</sup>, Cl<sup>-</sup> <5ppm).

Vitralit® 1650 provides all advantages of the First Generation's chip coating material, and in addition has a better adhesion and temperature resistance.

**shelf life:**

in closed original packing unit at 5°C without UV- irradiation -- 6 months --

## Technical Data

Color	grey
Resin	epoxy
Filler	approx. 51% quartz

## UNCURED PROPERTIES

Viscosity (Brookfield LVT/25°C) [mPa*s]	PE-Norm P001	6000 to 9000
Flash point [°C]	PE-Norm P050	> 93
Density [g/cm³]	PE-Norm P051	approx. 1.5

## Curing

UV(UV-A 60mW/cm² (Thickn.st. 0,5mm)): [sec.]	PE-Norm P002	30
Full Strength [hours]	PE-Norm P032	after 24
Depth of Cure [mm]	PE-Norm P033	3

## CURED PROPERTIES

Temperature Resistance [°C]	PE-Norm P030	-40 to 150
Hardness Shore D	PE-Norm P052	70 to 80
Shrinkage [Vol-%]	PE-Norm P031	1.2
Water Absorption [Gew-%]	PE-Norm P053	< 0,2
TG DSC [°C]	PE-Norm P009	30 to 40
Thermal Expansion [ppm/K]	PE-Norm P017	40
Dielectric Constant [10kHz]	PE-Norm P054	3.4
Thermal conductivity [W/mK]	ASTM 1530	0,8

Our data sheets have been compiled to the best of our knowledge. The information included in our data sheets is exclusive information for the intended 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] 3500

Vitralit UV- epoxy, filled, UV curing:

- storage at max. 5°C
- before using acclimate to room temperature in original packing unit
- applicable with syringe, quench bottle, dispenser, automatic dispenser...
- surfaces to be bonded should be free of dust, oil, fat or any other dirt
- curing wave- length from 315nm to 400nm

Curing time depends on:

- emission spectrum and intensity of emitter but min. 30mW/cm<sup>2</sup>
- distance from emitter to substrate
- emitter intensity aging
- layer thickness
- material influence like reflection, adsorption, UV permeability ...

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and more...