



UK DISTRIBUTORS OF
REINHARDT-TECHNIK
 Metering & Mixing
 Dispensing Systems



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Vitralit 1650 - Technical data sheet

Vitralit® 1650 is an epoxy adhesive and Glob-Top - especially developed for chip protection. It features a high purity and a low ionic concentration (Na⁺,K⁺, Cl⁻ <5ppm).

Vitralit® 1650 provides all advantages of the first generation of chip coating materials and encapsulants, and offers the added benefit of a higher adhesion and temperature resistance. Its maximum grain size distribution is 80 µm.

Shelf life:

In closed original packing unit at 5°C without-irradiation 6 months.

Technical Data:

Colour:	Grey
Resin:	Epoxy
Filler:	approx. 51% quartz

Uncured Properties:

Viscosity (Brookfield LVT/25°C) [mPa*s]	PE-Norm P001	6000 to 9000
Flash Point:	PE-Norm P050	> 93
Density [g/cm ³]	PE-Norm P003	approx. 1.5

Curing:

UV(UV-A 60mW/cm ² (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 [%]	PE-Norm P031	1.2
Water absorption [mass-%]	PE-Norm P053	< 0.2
Tg [°C] (DSC)	PE-Norm P009	30 to 40
CTE [ppm/K]	PE-Norm P017	40
Dielectric Constant [10kHz]	PE-Norm P054	3.4
Thermal conductivity [W/m·K]	ASTM 1530	0.8

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/cm²
- distance from emitter to substrate
- emitter intensity aging
- layer thickness
- material influence like reflection, adsorption, UV permeability ...

