Vitralit® UV 2113 is a product for Bonding/Sealing/Encapsulation of plastics as well as glass, metals or FR4 to protect sensitive parts against mechanical and environmental stresses.

Vitralit® UV 2113 is very strong, highly filled to give low CTE. Low shrink, tough dry surface after very fast cure. Can withstand welding and very high temperatures.

**Shelf life:**
Store in original, unopened containers for 6 months at max. 25 °C

### Technical Data
- **Color:** grey
- **Resin:** Epoxy-Acrylat
- **Filler:** approx. 35% quartz

### UNCURED PROPERTIES
- **Viscosity (25 °C / Brookfield LVT / Sp. / UPM):** PE-Norm P001 19000 to 32000
- **Flash point [°C]:** PE-Norm P050 > 100
- **Density [g/cm³]:** PE-Norm P003 approx. 1.05
- **Refractive Index [nD20]:** PE-Norm P018 1.51

### Curing
- **UV(UV-A 60mW/cm² in 0.05mm): [sec.]:** PE-Norm P002 2
- **Visible Light (d= 0.05 mm) :[sec.]:** PE-Norm P007 20
- **Full Strength [hours]:** PE-Norm P003 12
- **Depth of Cure [mm]:** PE-Norm P004 7

### 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 2
- **Water Absorption [mass-%]:** PE-Norm P053 < 0.15
- **Tg [°C] (DSC):** PE-Norm P009 50 to 60
- **CTE [ppm/K]:** PE-Norm P017 52
TECHNICAL DATASHEET

Vitralit® UV 2113

Mechanical Data

Compression Shear Strength (Glass/Glass) [MPa] [PE-Norm P061] approx. 10
Compression Shear Strength (Glass/Alu) [MPa] [PE-Norm P061] approx. 12
Compression Shear Strength (Glass/Stainless Steel) [MPa] [PE-Norm P061] approx. 13
Lap Shear Strength (PC/PC) [MPa] [PE-Norm P013] approx. 7
Lap Shear Strength (PC/Stahl) [MPa] [PE-Norm P013] approx. 7
Lap Shear Strength (PC/FR4) [MPa] [PE-Norm P060] approx. 9
Elongation at Break [%] [PE-Norm P060] approx. 9
E-Modul [MPa] [PE-Norm P056] 1345

Surface Preparation

The surfaces to be adhered should be free of dust, oil, fat or any other dirt in order to optimise reproducible bonds. Lightly soiled surfaces can be cleaned with isopropyl or ethanol, whereas substrates with low surface energy (such as polyethylene, polypropylene or Teflon) need to be treated physically using plasma or corona to create a suitable working surface. For glass bonding applications we have developed a special primer pen which can be easy applied to prepare the surface for best results.

Application

Our products are delivered ready for use. As soon as you receive them, you can dispense them, be it by hand from the container, or semi/fully automatically. When applied automatically, we recommend the use of air pressure with the appropriate cartridge/piston combination to dispense the adhesive at the required speed and accuracy. If help is required, please consult our engineering department.

Please read the corresponding Safety Data Sheet for this product.

Adhesives and more...

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Otherwise the guidelines for application, storage etc. in our general Data Sheet Vitralit® are valid.

19.10.2011 / 05.2012
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