BOARD LEVEL
UNDERFILL ADHESIVES

To gain exceptional mechanical stability and long-term reliability in modern electronics underfills are essential in assemblies like flip chips and BGAs. These adhesives reduce mechanical stress and improve thermal performance, ensuring durability in temperature-sensitive applications.

Advanced formulations from Hoenle with fine fillers that lower the coefficient of thermal expansion (CTE) can thus boost reliability. Epoxy-based underfills offer excellent capillary flow, penetrating narrow gaps for complete coverage - even in complex designs.

Rapid heat curing and excellent flowability can effectively increase UPH and improve energy efficiency. High-quality underfills from Hoenle enhance component strength, thermal stability, and service life - indispensable for modern electronics, from smartphones, automotives, 5G communications to power modules.

KEY ADVANTAGES

- Effectively relieve mechanical stresses
- Significantly improve thermal stability
- Ensure complete gap coverage
- Good flow performance for different designs
- Structalit® 8202 series enables sustainable component reworkability

IMPROVE THERMAL RESILIENCE OF SOLDER JOINTS

COMPENSATE MECHANICAL STRESSES

REWORKABLE UNDERFILLS AVAILABLE

UNDERFILL **INNOVATIONS**

STRUCTALIT® 8202

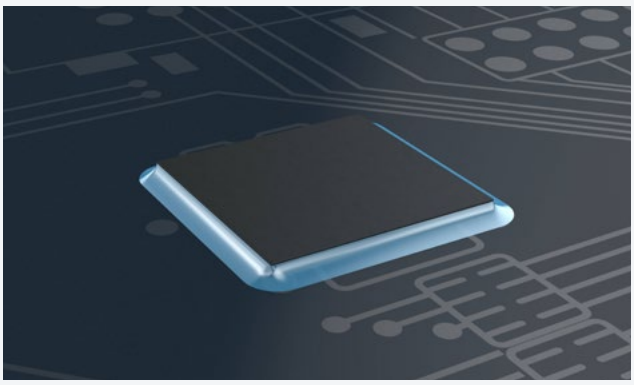
- Black epoxy
- Not filled, good capillary flow behavior
- Low Dk
- Reworkable
- Compatible with most Pb-free solder materials
- Provides excellent mechanical properties to protect solder joints during thermal cycles

STRUCTALIT® 8205

- Black epoxy
- Perfect flowability at high temp (80-100°C)
- Low CTE
- Easy to control KOZ (Keep out zone) < 300µm
- Provides excellent mechanical properties to protect solder joints during thermal cycles
- High reliability, can pass 3x reflow

STRUCTALIT® 8202 A

- Transparent, amber epoxy
- Not filled, good capillary flow behavior, especially suitable for narrow gaps (<20µm)
- Low Dk, reworkable
- Compatible with most Pb-free solder materials
- Provides excellent mechanical properties to protect solder joints during thermal cycles



Adhesive	Viscosity (cps)	Curing	Hardness (Shore)	Tg (°C)	CTE	Elongation at tear (%)	Young's Modulus (MPa)
Structalit® 8202	300-400	10 min@130°C	D 65-85	85-100	30-60/ 160-300	<5	2,000-3,000
Structalit® 8202 A	250-400	10 min@130°C	D 65-80	90-100	50-70/ 160-220	<5	2,000-3,000
Structalit® 8205	6,000	15 min@130°C	D 90	130	31/79	0.5	8,000

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