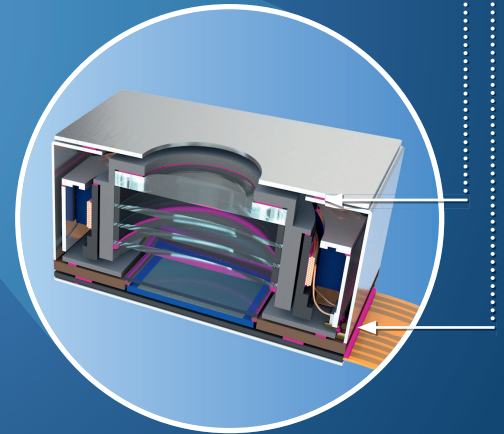




Low-tension bonding of temperature-sensitive components for compact cameras



Cooler Than Ever: Heat-Curing Adhesives

Low-tension curing at +60 °C

DELO has developed low-temperature-curing adhesives with optional light fixation for temperature-sensitive components. These products achieve full strength when cured at just +60 °C.

Heat-curing adhesives are used for many applications requiring high strength and permanent environmental resistance. To achieve these properties, most adhesives must be cured at temperatures between +100 °C and +150 °C – but not DELO's adhesives.

Application areas

Low-tension bonding and casting of temperature-sensitive materials in the following sectors and many more:

- Compact camera modules (CCM)
- Electronic assembly
- Mobile assembly
- Optical packaging (including infrared LEDs, image sensors)
- Wearables

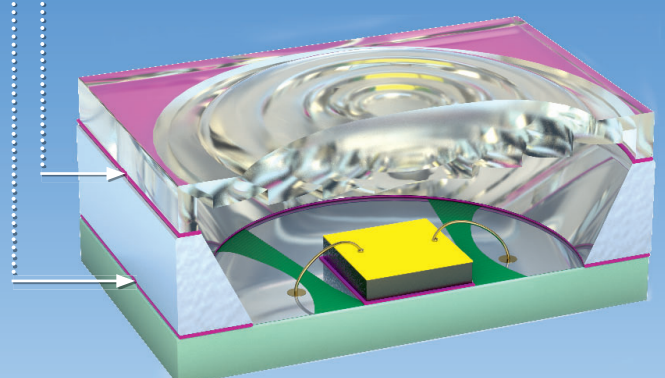
Customer's benefits

- Used in applications requiring high precision: Extremely low warpage due to low heat input
- Low thermal stress enables the use of cost-efficient substrates
- High efficiency due to low energy consumption during heat curing
- High positioning accuracy by light fixation

Product properties

- One-component, modified epoxy resins, solvent-free
- Optional prefixation (from an irradiation time of 0.5 s)
Low curing temperature: +60 °C
- Dispensing of very fine structures with standard dispensing needles (for example, 200 µm dia.)
- Excellent adhesion to many plastics (such as ABS, LCP, PA, PBT, PMMA, PPS), metals and FR4
- High strength and permanent environmental resistance

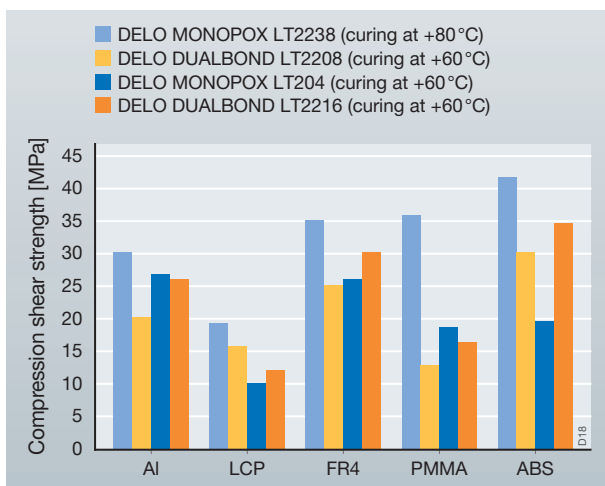
Optical packaging – Bonding of housing to PCB and glass cover to housing



	DELO MONOPOX LT2238	DELO DUALBOND LT2208	DELO MONOPOX LT204	DELO DUALBOND LT2216
Color	black	yellowish	black	beige
Viscosity [mPas]	21,000	1,500	28,000	14,000
Processing time	72 h/rt	48 h/rt	72 h/rt	48 h/rt
Curing temperature [°C]	+60 to +150			
Curing conditions until final strength	30 min @ +60°C	45 min @ +60°C	90 min @ +60°C	
Tensile strength [MPa]	56	22	20	26
Elongation at tear [%]	2	70	35	13.5
Young's modulus [MPa]	5,600 DMTA	180	400	1,900
Shore hardness	D 84	D 69	D 77	D 75
Glass transition temperature T _g [°C]	+56	+32	+30	+38
Shrinkage [Vol. %]	4	5	4	4.9
Storage life	4 months/-18°C	6 months/-18°C	4 months/-18°C	6 months/-18°C
Container sizes	30 cc	10 cc	10 cc, 30 cc	10 cc

LT = Low Temperature

In addition, various modifications of these products are available. These have, for example, a different flexibility/strength ratio or cure even faster. Please feel free to contact our Product Management for further details and inquiries.



CONTACT

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DISPENSING

CURING

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