Room Temperature Curing Optical Adhesives

Why are Room Temperature (RT) Optical Adhesives Important?

- **Ideal for bonding temperature sensitive substrates.**
- **No need for an oven to accommodate large parts.**
- **Lowest stress cure for large parts or high stress temperature cycling.**

	Product	Viscosity (cPs)	TI	Cure Time @ 23°C	Pot Life (hrs)	Tg	Die Shear (kg)	Color After Cure	Features	
REACH Compliant	**301-2FL Family**									
	301-2FL	100-200 @100 rpm	n/a	3 days @ 23°C 3 hours @ 80°C	10	≥45°C	≥10	clear/ colorless	Flexible, optically clear, low temperature cure adhesive	Compliant, low temperature curing for stress relief of sensitive parts.
	301-2FL-T	300-600 @100 rpm	2.6	3 days @ 23°C 3 hours @ 80°C	5	≥45°C	≥5	cloudy/ colorless	**Thixotropic version of 301-2FL**	Now available in a non-flow rheology version.
	302-3M Family									
	302-3M	800-1,600 @100 rpm	n/a	24 hours @ 23°C 3 hours @ 65°C	1	>55°C	≥10	clear/ colorless	Optically clear, low temperature cure adhesive with excellent reliability and 85°C/85%RH resistance.	
REACH Compliant	**302-3M-R**	592 @100 rpm	n/a	24 hours @ 23°C 3 hours @ 65°C 1 hour @ 80°C	2	61°C	24	clear/ orange	Version of 302-3M with enhanced 85°C/85%RH resistance Three levels of viscosities/ rheologies for a variety of application techniques.	IR transparent, fast curing, with superior moisture resistance. Orange in color when cured above 100°C.
	OE145-4	683 @100 rpm	2.1	24 hours @ 23°C 3 hours @ 65°C 1 hour @ 80°C	2	59°C	22	cloudy/ orange		
	OE145-5	1,163 @100 rpm	2.9	24 hours @ 23°C 3 hours @ 65°C	2	59°C	24	cloudy/ orange		

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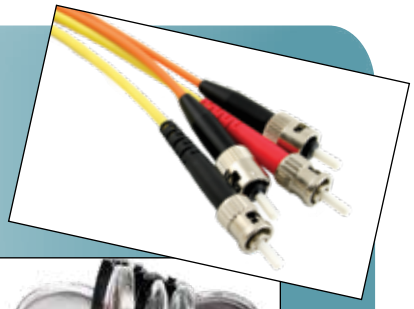
Typical Applications Using RT Curing Optical Adhesives

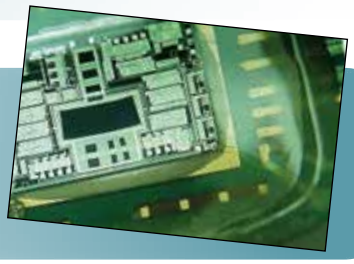
Exceptional Moisture Resistance with a Low Temperature Cure



- Stress sensitive FO connections
  - PM fibers
  - Polymer fibers
  - Multi-mode fibers
- Precision optics attach
  - Low shrinkage for best possible alignment of prisms, lenses and mirrors
- Near hermetic sealing (package sealing in temperature sensitive environments)
  - Batteries
  - Sensitive electronics

Semiconductor Packaging

- Low shrinkage for large die underfill or encapsulant
- SMD/SMT staking of temperature sensitive packages
- Stress sensitive ferrite bonding



Small Potting/Encapsulation

- Moisture sensitive electronics and sensors

Medical/Life Science

- Suggested for plastic structural and sealing applications of medical electronics outside the body, whether home care or clinical care
- Water-proofing, potting and sealing consumer related electronics, whether hand held or worn, found in leisure, sports rehab, or home-care devices and applications

Please consult our *Application Experts* to assist in selecting the most suitable adhesive for your specific technical challenge: techserv@epotek.com

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