



UV-CURABLE EPOXY SEALANTS: High Hardness, High Tg, and Low CTE adhesives

APPLICATIONS: OPTOELECTRONICS AND SEMICONDUCTOR PACKAGING

Products	Applications	Linear Shrinkage, %			Refractive Index of cured film, 25 °C	Outgas, weight % (125 °C, 120 hr, air)			Tg, °C	CTE (x10 ⁻⁶), °C ⁻¹	Viscosity, cps @ 25 °C	Young's modulus, Kg/(mm ²)	Shore D	Elongation, %	Curing UV Dose, J/cm ²	Features	Markets
		589 nm	1310 nm	1550 nm		<Tg	>Tg	Spot lamp* air (nitrogen)									
AC A535-AN	bonding glass to glass or glass to metal, suitable for hermetic sealing applications, no out gas	<0.2	1.578	1.562	1.558	0.10	165-175	28	82	3,000 to 4,100	239	95	4	30-50	2.0-4.0	high Tg, excellent adhesion to glass, metal and ceramic, polishable adhesive, low CTE, no outgas	optoelectrics, semiconductor packaging
AC A535-A	bonding glass to glass or glass to metal, suitable for hermetic sealing applications.	<0.5	1.572	1.556	1.553	0.10	155	42	86	900-1,100	172	90	4	30-50	3.5-4.0	low viscosity, high Tg, excellent adhesion to glass, metal and ceramic, polishable adhesive, low CTE, no outgas	optoelectrics, semiconductor packaging
AC A586	Optical components and optical packaging applications, suitable for hermetic sealing applications, no outgas	<0.3	1.563	1.547	1.544	0.10	110	28	85	4,500-6,000	100	90	5	30-50	3.0-5.0	high Tg, excellent adhesion to glass, metal and ceramic, polishable adhesive	optoelectrics, semiconductor packaging

APPLICATIONS: OLED/PLED EDGE SEAL, CHIP AND SENSORS PACKAGING

Products	Applications	Linear Shrinkage, %	Water Permeability of cured film, 75µm film)	Outgas, weight % (125 °C, 120 hr, air)			Tg, °C	CTE (x10 ⁻⁶), °C ⁻¹	Viscosity, cps @ 25 °C	Young's modulus, Kg/(mm ²)	Shore D	Elongation, %	Curing UV Dose, J/cm ²	Features	Markets
				<Tg	>Tg	Spot lamp* air (nitrogen)									
AC A1430-B	Sealants for rigid OLED or PLED applications	<0.3	2x10 ⁻⁴	0.10	110	25	60	80,000-100,000	320	94	3	30-50	4.0-6.0	high viscosity, high Tg, low moisture permeability	Display edge sealants Rigid types
AC A1432	Sealants for rigid OLED or PLED applications	<0.3	2x10 ⁻⁴	0.08	160	21	60	50,000 - 65,000	340	95	4	35-40	2.0-4.0	high viscosity, high Tg, low moisture permeability, fast cure rate	Display edge sealants Rigid types
AC A1428	Sealants for flexible OLED or PLED applications	<0.5	3x10 ⁻⁴	0.18	110	28	85	4,500-6,000	136	90	5	30-50	3.0-5.0	good adhesion, suitable for plastic to glass edge sealant	Display edge sealants Flexible types
AC A1429-F1	Sealants for flexible OLED or PLED applications	<0.5	3x10 ⁻⁴	0.25	110	80	195	6,000-7,500	40	75	15	25-35	2.0-4.0	good adhesion, suitable for plastic to plastic edge sealant high flexibility for plastic display	Display edge sealants Flexible types

* Minimum intensity recommended for Spot lamp system: 100 mW/cm²

** Intensity recommended for Flood lamp system: 49 W/cm or 125 WPI

** For good cure rate, keep relative humidity <50%: Under high humidity conditions, longer cure times or higher UV-doses are required

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LOW REFRACTIVE INDEX RESINS: Fluorinated Acrylate resins

APPLICATIONS: OPTOELECTRONICS COMPONENTS, OPTICAL FIBER CLADDING

Products	APPLICATIONS	Linear Shrinkage, %			Refractive Index of cured film, 25 °C		Outgas weight % (125 °C, 120 hr, air)		Tg, °C		CTE (x10 ⁻⁶), °C ⁻¹	Viscosity, cps @ 25 °C	Young's modulus, kg/mm ²	Shore D	Elongation, %		Curing UV dose, J/cm ²	FEATURES
		589 nm	1310 nm	1550 nm		<Tg	>Tg	Spot lamp* air (nitrogen)	Flood lamp** air (nitrogen)									
AC R220B	Optical fiber cladding	1	1.420	1.4114	1.409	0.17	23	74	130	200-275	21	60-70	4	3-5 (2-4)	>2 (>1)	flexible cladding material, excellent solvent resistance		
AC R221	Optical fiber cladding	0.4	1.416	1.407	1.405	0.15	70	72	160	100-150	25	60-70	10	3-5 (2-3)	2-3 (1)	hard cladding material, excellent solvent resistance		
AC R262-MOD5	Index matching. AWG and waveguide bonding	0.3	1.455	1.444	1.442	-	117	18	125	220-280	70	80	5	1 (0.5)	0.6 (0.5)	high Tg, low viscosity, fast cure rate, hard		
AC R260-A1	Index matching. AWG and waveguide bonding	0.3	1.458	1.448	1.445	-	50	64	200	450-650	9	50	120	2-4 (1)	0.6-1 (0.5)	low modulus, flexible		

* Minimum intensity recommended for Spot lamp system: 100 mW/cm²

** Intensity recommended for Flood lamp system: 125 WPI or 49 WPCm

ALL GRADES CAN BE MADE AS UV-CURE, THERMAL-CURE, OR DUAL-CURE

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DUAL CURE ADHESIVES: Either UV or HEAT

APPLICATIONS: ELECTRONICS PACKAGING

Products	Applications	Linear Shrinkage, %	Outgas, weight % (125 °C, 120 hr, air)	Tg, °C		CTE ($\times 10^6$), °C ⁻¹	Viscosity, cps @ 25 °C	Young's modulus, kg/mm ²	Shore D	Elongation, %		Curing UV dose, J/cm ²	Features
				<Tg	>Tg					Spot lamp* air (nitrogen)	Flood lamp** air (nitrogen)		
AC M625-B	Packaging. UV fix of aligned parts and thermal post cure in areas where UV light cannot penetrate	0.04	-	109	45 155	13,000-15,000	81	90	12	2-3 (1-2) heat 100 °C , 90-120 minutes	0.6-1 (0.6)		high hardness, high Tg, medium viscosity
AC M730-L	Packaging. UV fix of aligned parts and thermal post cure in areas where UV light cannot penetrate	0.5	0.14	94	-	750-900	105	85	40	2-3 (1-2) heat 75 °C , 120 - 180 minutes	0.6-1 (0.6)		low temperature curable, fast cure rate , low viscosity, high Tg
AC M60-6	Packaging. UV fix of aligned parts and thermal post cure in areas where UV light cannot penetrate	<0.3	0.10	107	28 129	12,000-17,000	119	85	17	10-20 heat 180 °C , 3-6 hrs	2-4		very high temperature resistance, high Tg

* Minimum intensity recommended for Spot lamp system: 100 mW/cm²

** Intensity recommended for Flood lamp system: 49 W/cm or 125 WPI

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UV-CURABLE, HIGH REFRACTIVE INDEX OPTICAL RESINS

APPLICATIONS: Plastic Lens, Hybrid Lens, LED Encapsulations

Products	APPLICATIONS	Linear Shrinkage, %	Refractive Index of cured film, 25 °C	Tg, °C	Shore D	Viscosity, cps @ 25 °C	Young's modulus, Mpa	Elongation, %	Operating Temperature °C	Curing UV dose, J/cm ²	Features
AC L2002-C36	Lens, LED encapsulations	<0.3	1.518	149	83-84	1,500-1,700	1800	7	-40 to 140	1	High hardness, low shrinkage, high temperature resistance, non-yellow
AC L2006-S2	Lens, LED encapsulations	<0.3	1.557	105	85	1,600-1,900	1200	10	-40 to 140	0.6 to 1	High hardness, low shrinkage, high temperature resistance, non-yellow
AC L2007	Lens, LED encapsulations	<0.3	1.567	109	87	8,000-10,000	2,100	5	-40 to 140	0.6 to 1	High hardness, low shrinkage, high temperature resistance, non-yellow

* Minimum intensity recommended for Spot lamp system: 100 mW/cm²

** Intensity recommended for Flood lamp system: 49 WPcm or 125 WPI

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UV-CURABLE HARD COAT FOR PLASTICS

APPLICATIONS: OPTICALLY CLEAR HARD COAT FOR PLASTICS

Products	APPLICATIONS	Viscosity, cps @ 25 °C	Tg, °C	Refractive Index of cured film, 25 °C	Shrinkage, volume %	Young's modulus, Mpa	Elongation, %	% Transmission	Pencil Hardness (5-7 µm)	Suggested diluting solvents	Curing UV dose: J/cm ²	FEATURES	Markets
			589 nm					PET PC PMMA		Flood lamp in air			
HC 5619	Optically clear UV-curable hard coat for plastics	5,000-6,000	115	1.51	6	1,500	5	93	4-5H 5H 6H	MIBK, MEK, PM or PGME, IPA	0.5-0.6	high hardness, easy cure in air	displays
HC 5619-A	Optically clear UV-curable hard coat for plastics	10,000-13,000	115	1.51	4-5	1,400	7	93	4H 4H 5H	MIBK, MEK, n-butyl acetate, PM or PGME	0.5-0.6	good adhesion, low shrinkage	displays
AC HI-6150	High refractive index, Optically clear UV-curable hard coat for plastics	55,000-60,000	120	1.58	5	1,200	5	90	2H 2H 2H	MIBK, MEK, n-butyl acetate, PM or PGME	0.6-1.0	high refractive index, good adhesion, low shrinkage	displays

UV-CURABLE LAMINATING ADHESIVE

APPLICATIONS: PLASTIC TO PLASTIC, PLASTIC TO GLASS OR PLASTIC TO METAL LAMINATING.

Products	APPLICATIONS	Viscosity, cps @ 25 °C	Refractive Index of cured film, 25 °C	Tg, °C	Shrinkage, linear %	Water Absorption (% 100 °C until saturation)	Hardness - Shore D	Young's modulus, Mpa	Elongation, %	Operating Temperature (°C)	Curing UV dose: J/cm ²	FEATURES	Markets
										Flood lamp in nitrogen			
AC A109-PLV	Laminating adhesive	4,000-7,000	1.50	46	<0.3	0.25	17 to 20	2	900	-40 to 100	0.3 to 1	Low modulus, high elongation, low stress and flexible adhesive	Displays

* Minimum intensity recommended for Spot lamp system: 100 mW/cm²

** Intensity recommended for Flood lamp system: 49 WPcm or 125 WPI

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