

EMCAST UV Cure Epoxy Selector Guide

- ▶ Encapsulants
- ▶ Sealants & Coatings
- ▶ Electrically Conductive
- ▶ Die Attach
- ▶ Adhesives



 **EMHUV**

Electronic Materials Inc.

LEADING THE WORLD IN UV-CURED TECHNOLOGY

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Featuring very low levels of ionic contamination and exceeding the requirements of NASA Reference Publication 1124 on outgassing, the following materials are ideally suited to a variety of electronic applications. Additionally, EMI offers acrylate based UV cure materials, single and two component thermal cure epoxy adhesives. Customized formulations and packaging are also available.

EMCAST UV Cure Adhesives – Single Component												
Product	Type	Color	Viscosity	Hardness	Tg°C	Diel. St. Volts/mil	Vol. Rest. OHM/CM	Dielect Constant	Sp. Gravity	CTE ppm/°C	Sheer Strength	Shelf life @ 20°C
1710	Epoxy	Clear	600	67D	35	400	3 X 10 ¹⁵	3.4	1.14	80	2400	12 Months
1712	Epoxy	Translucent	8,000	87D	105	425	8 X 10 ¹⁵	3.2	1.14	75	2600	12 Months
1728	Epoxy	Translucent	45,000	81D	40	400	8 X 10 ¹⁵	3.2	1.16	70	3200	12 Months
1728HH	Epoxy	Translucent	55,000	85D	68	420	8 X 10 ¹⁵	3.2	1.14	70	3300	12 Months
1728HTG	Epoxy	Translucent	55,000	86D	93	420	8 X 10 ¹⁵	3.2	1.14	65	3500	12 Months
1728ETG	Epoxy	Translucent	55,000	87D	20	440	12 X 10 ¹⁵	3.2	1.14	65	3500	12 Months
1732	Epoxy	Translucent	45,000	60A	-5	400	1 X 10 ¹⁴	3.1	1.12	85	450	12 Months
1734	Epoxy	Clear	10,000	60A	-5	400	1 X 10 ¹⁴	3.1	1.12	85	450	12 Months
1738	Epoxy	Translucent	55,000	81D	37	400	1 X 10 ¹⁴	3.1	1.13	70	3200	12 Months
1738ETG	Epoxy	Translucent	57,000	87D	105	410	3 X 10 ¹⁵	3.2	1.13	70	3200	12 Months
1738LD-60	Epoxy	Translucent	50,000	60D	20	400	7 X 10 ¹⁵	3.1	1.13	65	3200	12 Months
1738VTG	Epoxy	Translucent	57,000	90D	130	400	1 X 10 ¹⁴	3.3	1.13	65	3200	12 Months
1748S-HTG	Epoxy	Translucent	55,000	85D	90	400	5 X 10 ¹⁵	3.2	1.17	65	3200	12 Months
1820	Epoxy	Clear	300	67D	10	420	4 X 10 ¹⁵	3.8	1.12	80	2400	12 Months
1821	Epoxy	Clear	300	50A	-5	400	2 X 10 ¹⁵	3.8	1.12	80	1900	12 Months
1822	Epoxy	Clear	400	80D	94	440	7 X 10 ¹⁵	3.8	1.13	75	3400	12 Months
1823	Epoxy	Clear	500	83D	100	450	9 X 10 ¹⁵	3.8	1.13	70	3900	12 Months
EMCAST UV and/or Thermal Cure Adhesives – Two Component												
Product	Color	Viscosity (Mixed)	Thermal Cure Temp.	Hardness	Tg°C	Diel. St. Volts/mil	Cure Method	Dielect Constant	Sp. Gravity	CTE ppm/°C	Working Life Mixed	Shelf life Unmixed @5C
607	Translucent	50,000	RT to 120°C	55D	30	450	UV & Heat	3.0	1.13	80	4-6 Hours	12 Months
610	Translucent	50,000	RT to 120°C	82D	85	470	UV & Heat	3.0	1.13	70	4-6 Hours	12 Months
612	Translucent	50,000	RT to 120°C	85D	125	470	UV & Heat	3.0	1.13	65	4-6 Hours	12 Months

EMCAST Thermal Cure Adhesives

Product	Color	Viscosity	Hardness	Tg°C	Diel. St. Volts/mil	Vol. Rest. OHM/CM	Thermal Conductivity W/m°C	Dielect Constant	Sp. Gravity	CTE	Number of Components	Shelf life @ 0°C
4180	Black	6,000	82D	120	420	3 X 10 ¹⁴	0.1	3.3	1.15	60	1	6 months
4114	Hazy Amber	7,500	55A	-10	420	5 X 10 ¹⁴	0.1	3.2	1.15	75	1	6 months
4460	Green	10,000	840	110	420	3 X 10 ¹⁴	0.1	3.3	1.15	60	2	6 months

CHIPSHIELD UV and/or Thermal Cure Encapsulants & Chip Coatings

Product	Color	Viscosity	Hardness	Tg°C	Diel. St. Volts/mil	Vol. Rest. OHM/CM	Thermal Conductivity W/m°C	Filler %	Dielect Constant	Sp. Gravity	CTE ppm/°C	Shelf life @ 0°C 1 Component
2321	Gray	80,000	94D	150	425	5 X 10 ¹⁵	0.6	64	3.3	1.6-1.8	28	6 months
2322	Gray	75,000	95D	160	425	5 X 10 ¹⁵	0.6	65	3.3	1.6-1.8	25	6 months
2323	Gray	175,000	95D	160	425	5 X 10 ¹⁵	0.6	65	3.3	1.6-1.8	24	6 months
2400	Gray	175,000	90D	160	425	7 X 10 ¹⁵	0.7	75	3.2	1.6-1.8	20	6 months
2401	Gray	300,000	95D	162	425	5 X 10 ¹⁵	0.7	75	3.2	1.6-1.8	16	6 months
2510	Gray	20,000	92D	150	425	5 X 10 ¹⁵	0.6	66	3.3	1.6-1.8	25	6 months
2520	Gray	12,000	70D	60	425	6.6 X 10 ¹⁵	0.4	40	3.2	1.6-1.8	40	6 months
2590	Gray	11,000	90D	130	425	6 X 10 ¹⁵	0.4	50	3.3	1.5-1.6	30	6 months
2610	Gray	17,000	92D	150	425	7 X 10 ¹⁵	0.6	70	3.3	1.6-1.8	27	6 months

EMCAST UV Cure Encapsulants & Chip Coatings – One Component

Product	Color	Viscosity	Hardness	Tg°C	Diel. St. Volts/mil	Vol. Rest. OHM/CM	Thermal Conductivity W/m°C	Filler %	Dielect Constant	Sp. Gravity	CTE	Elongation %	Shelf life @ 0°C
1500-LI	Gray	15,000	90D	160	450	9 X 10 ¹⁴	0.8	50%	3.5	1.5	33	2	1 Year
1510	Gray	20,000	88D	110	450	8 X 10 ¹⁴	0.2	50%	3.2	1.5	30	3	1 Year
1550	Gray	7,500	68D	30	410	4 X 10 ¹⁴	0.8	50%	3.5	1.5	35	5	1 Year
1551	Gray	50,000	90D	30	410	5 X 10 ¹⁴	0.8	50%	3.5	1.5	35	5	1 Year

All data in this bulletin is based on our own research and the research of others. They are believed to be accurate, however no guarantee of accuracy is made. Product description is sold without warranty except conformity to specification and on condition that the purchasers shall determine suitability for their particular purpose.



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