MASTER BOND CONFORMAL COATING APPLICATION SELECTOR GUIDE

Selected Products Specially Formulated for High Performance Protection of Electronic Assemblies and Devices
Partial Listing Only —— Other Grades Available

Conformal coatings are essential materials for enhancing the long term reliability and performance of electronic assemblies, particularly when exposed to harsh conditions such as high humidity, corrosive chemicals and extreme temperatures. Master Bond Inc. offers a complete line of conformal coatings that are easy to apply and provide superior protection for printed circuitry. These conformal coatings include very fast, one part, UV curing formulations, one and two part epoxies, one and two part silicones and a unique, cost effective latex system. These coatings can be applied by spraying, dipping, flow coating and other conventional processing techniques. Master Bond Inc. will be glad to recommend specific products for your particular application.

Two Component Epoxies —

Master Bond Grade	Color Code	Mix Ratio by weight	Viscosity RT, cps	Set-Up Time Minutes, RT	Cure Schedule Temp/Time, °F	Service Temp Range, °F	Applications
EP21LV-1	"A" clear "B" amber	100/100	4,000-6,000	60-90	24-48 hrs @ RT 1-2 hrs @ 200°F	-60 to +250°F	Excellent physical properties & chemical resistance profile. Offers convenient mix ratio and working life. Easy to apply by brushing or dip coating.
EP21LSCL	"A" clear "B" clear	100/60	1,000-1,500	30-35	24 hrs @ RT 1 hr @ 250°F	-65 to +250°F	Transparent, non-yellowing coating. Good electrical insulation properties. For optical, opto-electronic and display applications. Sprayable.
EP30-4	"A" clear "B" clear	100/50	2,000	4-10	8-12 hrs @ RT	-60 to +250°F	Transparent. Very fast curing. Low viscosity. Excellent electrical insulation and non-yellowing properties. Applied by spraying or flow coating.
EP30AO	"A" off white "B" clear	100/10	15,000-20,000	30-40	24-36 hrs @ RT 1-2 hr @ 200°F	-60 to +250°F	Low viscosity, thermally conductive coating. Excellent electrical insulation properties. Superior dimensional stability. Applied by brushing or dip coating.
EP30DP	"A" light amber "B" clear	100/10	3,000-4,000	60-90	48 hrs @ RT 2-3 hrs @ 200°F	4°K to +250°F	Toughened system. Offers repairability. Superb electrical insulation properties. Applied by brushing, dipping or spraying.
EP30FL	"A" amber "B" clear	100/25	2,000-3,000	25-30	24 hrs @ RT 1-2 hrs @ 200°F	4°K to +250°F	Low viscosity. Flexible. For high performance coating. Applied by spraying or dipping. Superior thermal and mechanical shock resistance. Cryogenically serviceable.
EP30HT	"A" clear "B" clear	100/25	35,000-45,000	25-35	24 hrs @ RT 1-2 hrs @ 200°F	-60 to +400°F	High temperature resistant coating. Outstanding chemical resistance. Excellent optical transmission properties. Easily applied by brushing or dipping.
EP30LV	"A" clear "B" clear	100/20	200-300	35-40	24-36 hrs @ RT 1-2 hrs @ 200°F	-60 to +250°F	Low viscosity, clear. Excellent electrical insulation properties & chemical resistance. Applied by spraying or flow coating.
EP37-3FLF	"A" clear "B" clear	100/100	1,500-1,800	120-150	48-72 hrs @ RT 3 hrs @ 200°F	4°K to +250°F	Highly flexible system. Outstanding resistance to thermal cycling. Offers repairability. Excellent optical properties. Applied by dipping or spraying.
EP41S-4	"A" black "B" clear	100/25	3,000-4,000	15-20	24 hrs @ RT 1-2 hrs @ 200°F	-60 to +300°F	Special high security coating with outstanding resistance to organic solvents and acids. Easily applied by brushing, flow coating or dipping.
EP62-1	"A" clear "B" tan	100/5 or 100/10	8,000-10,000	8-10 hrs	4-6 hrs @ 150°F or 2-3 hrs @ 200°F	-60 to +300°F	High temperature, high chemical resistance. Long working life at room temperature. Applied by brushing or dip coating. ***Requires heat cure at 150-200°F.***

One Component Epoxies —

Master Bond Grade	Color Code	Storage Stability, RT	Viscosity RT, cps	Cure Schedule Temp/Time, °F	Service Temp Range, °F	Applications
EP3FL	yellow to amber	3 months@75°F 6 months@40°F	60,000-70,000	5-10 min @ 300°F 20-30 min @ 250°F	4°K to +250°F	Toughened coating. Good electrical properties. Outstanding thermal cycling and thermal shock resistance. Cryogenically serviceable. Easily applied by dip coating or brushing.
EP19HT	amber clear	4 months	600	60 min @ 250°F 45 min @ 300°F	-60 to +400°F	Low viscosity. Good mechanical & electrical insulation properties. Superior chemical resistance. Applied by spraying or flow coating.
EP101HTX-3	clear with fluorescent dye	6 weeks	1,000-1,500	2-6 hrs @ 250°F followed by 6-10 hrs @ 300°F	-60 to +500°F	Unsurpassed dielectric properties. Very low dissipation factor. Excellent temperature resistance. Superb optical clarity. Used in high voltage applications. Easily applied by spraying or flow coating.

UV Curable Systems —

Master Bond Grade	Color Code	Viscosity RT, cps	Set-Up Time Minutes, RT	Cure Schedule Temp/Time, °F	Service Temp Range, °F	Applications
UV10LV	light amber clear	200	not applicable	5-30 secs depends on depth of cure & light intensity	-60 to +250°F	Ultra-low viscosity coating. Wickable. Outstanding electrical properties. Ideal for specialized conformal coatings. Sprayable.
UV15	slight amber clear	120-150	not applicable	5-30 secs depends on depth of cure & light intensity	-60 to +350°F	Excellent heat & chemical resistance. Post curing by heat enhances properties. Optional fluorescent dye available. Sprayable.
UV15-7	transparent	1,400-1,800	not applicable	5-30 secs depends on depth of cure & light intensity	-60 to +300°F	Superb non-yellowing properties. Outstanding physical strength and electrical insulation profile. Applied by spraying or flow coating.
UV15-7SP4	transparent	800-1,500	not applicable	5-30 secs depends on depth of cure & light intensity	-80 to +250°F	Highly flexible. Excellent non-yellowing properties. Great thermal shock & impact resistance. Superb thermal cycling capabilities.
UV15X-5LV	transparent	80,000	not applicable	5-30 secs depends on depth of cure & light intensity	-80 to +250°F	High flexibility. Outstanding abrasion resistance. Superb mechanical & thermal shock resistance. Best applied by brushing or dip coating.

Specialty Systems —

Master Bond Grade	Type of System	Mix Ratio by weight	Viscosity RT, cps	Set-Up Time Minutes, RT	Cure Schedule Temp/Time, °F	Service Temp Range, °F	Applications
MasterSil 713	1 part silicone	1 part	3,000	15-20	18-24 hrs @ RT depends on depth of cure & humidity	-75 to +400°F	Highly flexible, easily repairable system. Non corrosive & fast curing. Applied by brushing, dip coating or spraying.
MasterSil 773	1 part silicone	1 part	60-70	5	2-4 hrs @ RT depends on humidity	-75 to +400°F	Ultra low viscosity. Superb humidity & heat resistance. Applied by spraying, dipping, brushing or flow coating.
MasterSil 151	2 part silicone	100/10	1,200-1,500 (mixed)	4-5 hrs	24-48 hrs @ RT 2-3 hrs @ 200°F	-75 to +400	Addition type curing system. Optically clear. Low outgassing. Cures at ambient or elevated temperatures.
EP56	water based urethane	1 part	300-400	50-60	12-24 hrs @ RT	-75 to +250°F	Easily processable, low cost system. Excellent electrical properties. Best applied by brushing or dip coating.

Master Bond Inc.

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