

MASTER BOND POTTING & ENCAPSULATING APPLICATION SELECTOR GUIDE

Selected Master Bond Products Specially Formulated for Potting and Encapsulating Applications

Partial Listing Only — Other Grades Available

Two Component Epoxies —

Master Bond Grade	Mix Ratio by weight	Color Code	Mixed Viscosity RT, cps	Set-Up Time Minutes, RT	Cure Schedule Temp/Time, °F	Service Temp Range, °F	Applications
EP21LV	100/100	"A" clear "B" amber	6,000-8,000	60-90	24-48 hrs @ RT 1-2 hrs @ 200°F	-60 to +250°F	Versatile, easy to use system. Excellent physical properties & chemical resistance. Meets food grade & USP Class VI specs.
EP21AOLV	100/100	"A" gray "B" white	40,000-50,000	75-90	24-48 hrs @ RT 2-3 hrs @ 200°F	-60 to +250°F	Thermally conductive, electrically isolating. Convenient handling. Good dimensional stability and low shrinkage.
EP21FRLVSP	100/100	"A" red "B" white	25,000-30,000	30-60	24-48 hrs @ RT 2 hrs @ 200°F	-60 to +250°F	Flame resistant. UL94 V-0 certified system. Excellent physical and electrical insulation properties. Superb chemical resistance.
EP29LP	100/50	"A" clear "B" clear	800	> 6 hrs	5-7 days @ RT 4-6 hrs @ 200°F	-60 to +250°F	Low exotherm & long working life. Transparent. Low viscosity. Suitable for large castings. Very high tensile strength.
EP29LPSP	100/65	"A" clear "B" translucent	700	> 6 hrs	5-7 days @ RT 8-12 hrs @ 150°F	4°K to +250°F	Special version of EP29LP. Resists cryogenic temperatures & shocks. NASA low outgassing approved. Transparent.
EP30	100/25	"A" clear "B" clear	400-500	25-30	18-24 hrs @ RT 1-2 hrs @ 200°F	-60 to +250°F	Low viscosity transparent system. Exceptionally low shrinkage. Superb physical strength and electrical insulation properties.
EP30AO	100/10	"A" off white "B" clear	15,000-20,000	30-40	24-36 hrs @ RT 1-2 hr @ 200°F	-60 to +250°F	Thermally conductive, electrically isolating. Low viscosity. Good dimensional stability. Very low shrinkage.
EP30AN	100/10	"A" gray "B" clear	20,000-30,000	30-40	24-36 hrs @ RT 1-2 hrs @ 200°F	-60 to +250°F	Higher thermally conductive version of EP30AO. Special NASA approved low outgassing version also available (EP30AN-1).
EP30DP	100/10	"A" light amber "B" clear	3,000-4,000	60-90	48 hrs @ RT 2-3 hrs @ 200°F	4°K to +250°F	Toughened system. Withstands rigorous thermal cycling. Superior thermal shock resistance. Allows for repairability.
EP30FL	100/25	"A" amber "B" clear	2,000-3,000	25-30	24 hrs @ RT 1-2 hrs @ 200°F	4°K to +250°F	Flexible. Marvelous thermal & mechanical shock resistance. Excellent thermal cycling durability. Cryogenically serviceable.
EP30HT	100/25	"A" clear "B" clear	35,000-45,000	25-35	24 hrs @ RT 1-2 hrs @ 200°F	-60 to +400°F	High temperature resistance. Transparent. Extraordinary physical strength and chemical resistance properties.
EP30LTE	100/10	"A" black "B" clear	15,000-20,000	30-40	24-48 hrs @ RT 2-3 hrs @ 200°F	-60 to +250°F	Exceptionally low coefficient of expansion system. Features very low shrinkage and high dimensional stability.
EP30M3LV	100/50	"A" black "B" brown	2,000-3,000	130-150	48-72 hrs @ RT 3-4 hrs @ 200°F	-60 to +250°F	Low viscosity, low exotherm, long working life system. Excellent for potting capacitors. Superior dielectric properties.
EP34CA	100/50	"A" black "B" brown	5,000-6,000	12-24 hrs	1 hr @ 150°F plus 2-3 hrs @ 300°F	-60 to +500°F	Ultra high temperature resistant system featuring lower viscosity. Superlative physical strength properties. Requires heat cure.
EP37-3FLF	100/100	"A" clear "B" clear	1,500-1,800	120-150	48-72 hrs @ RT 3 hrs @ 200°F	4°K to +250°F	Easy to use, highly flexibilized system. Transparent. Unsurpassed thermal shock resistance. Readily repairable.
EP37-3FLFAO	100/100	"A" white "B" white	18,000-22,000	3 hrs	4-5 days @ RT 4-6 hrs @ 200°F	4°K to +250°F	Thermally conductive, electrically insulating version of EP37-3FLF. High flexibility and low viscosity. Offers repairability.
EP41S-4	100/25	"A" black "B" clear	3,000-4,000	15-20	24 hrs @ RT 1-2 hrs @ 200°F	-60 to +300°F	For high security potting applications. Superb resistance to chlorinated solvents and acids.
EP42HT	100/40	"A" clear "B" amber	8,000-10,000	35-45	24-36 hrs @ RT 2-3 hrs @ 150°F	-60 to +435°F	USP Class VI approved. Resists repeated chemical, ETO, radiation & steam sterilization. Widely used in medical devices.
EP62-1	100/5 or 100/10	"A" clear "B" tan	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 resistant system with very long working life. Requires heat cure at 150-200°F.
EP110F6	50/100	"A" clear "B" amber	15,000-20,000	12-24 hrs @ RT	60-90 min @ 150°F plus 6-8 hrs @ 300°F	-55 to +155°C	Meets MIL-I-16923C for thermal cycling requirements. Also has superior thermal shock resistance. Requires heat cure.

Two Component Epoxies —

Master Bond Grade	Mix Ratio by weight	Color Code	Mixed Viscosity RT, cps	Set-Up Time Minutes, RT	Cure Schedule Temp/Time, °F	Service Temp Range, °F	Applications
EP121CL	100/80	"A" clear "B" clear	2,000-3,000	>24 hrs	2-3hrs @ 200°F plus 6-8 hrs @ 300°F	-60 to 500°F	High temperature resistant, low viscosity and exceptional electrical insulation properties. Requires heat cure.
EP121AO	100/80	"A" white "B" white	35,000-45,000	12-24 hrs	3 hrs @ 200°F plus 8-10 hrs @ 300°F	-60 to 500°F	Thermally conductive, electrical insulating version of EP121CL. Superior dielectrics. Requires heat cure.

One Component Epoxies —

Master Bond Grade	Viscosity RT, cps	Color Code	Storage Stability, RT	Cure Schedule Temp/Time, °F	Service Temp Range, °F	Applications
EP3FL	60,000-70,000	yellow to amber	3 months@75°F 6 months@40°F	5-10 min @ 300°F 20-30 min @ 250°F	4°K to 250°F	Flexibilized system. Outstanding thermal cycling and thermal shock resistance. Cryogenically serviceable. Good electrical properties.
EP3HTMED	>200,000	tan or brown	6 months	5-10 min @ 300°F 20-30 min @ 250°F	-60 to 400°F	USP Class VI approved. For medical applications. Resists various types of sterilization, particularly cold sterilants. Very fast curing.
EP3RR-1	120,000-150,000	light yellow	3 months@75°F 6 months@40°F	5-10 min @ 300°F 20-30 min @ 220-230°F	-60 to 400°F	Toughened system with good thermal conductivity & heat resistance. Castable over 1 inch thick. Excellent flowability.
EP36	semi-solid melts at 180°F	tan	6 months	2 hrs @ 300°F uncured material reusable	-100 to 500°F	Unique B stage system. Combines superb temperature resistance with high flexibility & elongation. Passes Class H thermal cycling tests.
EP36AO	semi-solid melts at 180°F	light tan	6 months	2 hrs @ 300°F uncured material reusable	-100 to 500°F	Thermally conductive, electrically insulating version of EP36. Semi-flexible. Good mechanical and thermal shock resistance.

Miscellaneous —

Master Bond Grade	Mix Ratio by weight	Color	Viscosity cps	Storage Stability, RT	Cure	Service Temp Range, °F	Applications
UV10	one part	light amber clear	300-400	6 months	UV	-60 to 250°F	Low viscosity. Cures rigid and up to 1/8" deep. Excellent resistance to water and other chemicals. Good electrical properties.
UV15-7SP4	one part	clear	800-1,500	6 months	UV	-80 to 250°F	Highly flexible, non-yellowing system. Superb thermal cycling properties along with excellent thermal shock and impact resistance.
UV15X-2	one part	clear	6,000-8,000	6 months	UV	-80 to 250°F	Semi-flexible. Will cure over 1/4" deep. Good electrical & non-yellowing properties. Superior chemical resistance.
EP30D12	100/30	"A" amber "B" clear	800-1,000 mixed	6 months	2 part urethane	-60 to 250°F	Rapid curing, low exotherm, flexible type system. Superb abrasion resistance. Unusually superior chemical resistance.
EP30D14	100/100	"A" clear "B" clear	300-400 mixed	6 months	2 part urethane	-60 to 250°F	Transparent, non-yellowing system. Cures rigid. Also available as more flexibilized systems (EP30D15 & EP30D16). Very low viscosity.
MasterSil 151	100/10	"A" clear "B" clear	1,200-1,500 mixed	6 months	2 part addition cure silicone	-75 to +400°F	Unsurpassed combination of temperature resistance, flexibility and electrical insulation properties. Easily repairable. Low shrinkage.

Master Bond Inc.

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