

MP SERIES

Maximum Performance Series - Structural Adhesives

What we bond:

ABS
ACRYLICS
ALUMINUM
BRASS
COATED METALS
COLD ROLL STEEL
COPPER
FIBERGLASS
GALVANIZED
GLASS
MAGNET MATERIAL
METAL
NYLONS
PHENOLICS
PLATED METALS
POLYCARBONATE
PVC
STAINLESS STEEL
STYRENE
TITANIUM
URETHANES
VINYL

The **MP SERIES™** possesses excellent resistance to solvents, salt, humidity, acids, and caustics, with outstanding temperature cycling capability. Due to their unique bonding properties, they will structurally bond a variety of plastics, ceramics, and metals. They are available in a full range of viscosities and cure speeds to meet specific application requirements. The **MP SERIES™** lends itself well to high speed production applications. Whether the application is bonding similar or dissimilar parts, design engineers select the **MP SERIES™** for the optimum in finished product quality, reliability, performance, and cost effectiveness.



The **Maximum Performance Series** is a complete line of engineered structural adhesives consisting of no mix structurals, UV curables, one and two part epoxies, and two-part methacrylates.

MAXIMUM PERFORMANCE SERIES

NO-Mix Structurals

The **MP 5200 SERIES** provides for structural bonding to a wide range of similar and dissimilar substrates. These products are based on state of the art acrylic and anaerobic technology. They are two component, no mix systems. Simply apply the adhesive to one surface, the activator to the other, and mate the parts together. Fixture times will range from less then 30 seconds to 1 minute. The **MP 5200 SERIES** products were developed for applications that require the ultimate performance in harsh environments. These products provide excellent tensile, shear, and peel strength, combined with maximum impact, stress, and shock resistance. They are extremely durable materials, providing excellent aging and weathering properties. The **MP 5200 SERIES** is solvent free, cures at room temperature, and can be easily automated.



	VISCOSITY	COLOR	SPECIFIC GRAVITY	SHEAR STRENGTH	PEEL STRENGTH	% SOLIDS	TEMP RANGE	CHEMICAL RESISTANCE
MP 5200 SERIES, Maximum Performance Structural								
NO MIX STRUCTURALS:								
MP 5210 Low viscosity, high strength structural acrylic. Good temperature resistance.	1,500 cps	Translucent	0.98	4,200 psi	12	100 %	-40 to 350° F	Excellent
MP 5220 High viscosity, maximum gap filling acrylic. Excellent for magnet bonding applications.	22,000 cps	Translucent	1.02	4,200 psi	12	100 %	-40 to 350° F	Excellent
MP 5230 Fast fixturing, durable acrylic material for bonding dissimilar materials, high viscosity.	50,000 cps	Translucent	1.00	4,000 psi	12	100%	-40 to 350° F	Excellent
MP 5240 Ideal for high speed production applications, fixture time in less than 30 seconds. Acrylic based.	12,000 cps	Amber	1.08	4,200 psi	12	100%	-65 to 400° F	Excellent
MP 5250 Structural anaerobic, fast fixturing, engineered to provide impact strength, durability, thermal cycling, and resistance to severe environments. Ideal for high speed production applications.	30,000 cps	Light straw	1.02	4,000 psi	14	100%	-65 to 375° F	Excellent
MP 5255 Structural anaerobic, general purpose for bonding dissimilar substrates. Fast fixture times, solvent resistant.	15,000 cps	Light straw	1.06	4,000 psi	14	100%	-65 to 375° F	Excellent
MP 5257 Structural anaerobic with excellent high end temperature resistance. Exceptional strength and impact resistance.	10,000 cps	Amber	1.10	4,200 psi	14	100%	-60 to 425° F	Excellent
MP 5260 Bead on bead acrylic for metal and magnet bonding. Developed for electric motor manufacturing.	10,000 cps	Amber	1.10	3,700 psi	12	100%	-65 to 350° F	Good

Packaging: MP 5200 Series products are available in one and 15 liter containers. Special packaging is available upon request.

	VISCOSITY	COLOR	SOLVENT CONTENT	USE WITH	FIXTURE TIME
MP 5200 SERIES, Maximum Performance Activator					
MP 5201 Activator to be used with MP 5210, MP 5220, MP 5230, and MP 5240. Use for fast fixture times.	10 cps to 50 cps	Tan/Brown	0	MP 5210, MP 5220, MP 5230, MP 5240	30 to 45 Seconds
MP 5202 General purpose activator to be used with MP 5210, MP 5220, MP 5230, and MP 5240.	10 cps to 50 cps	Tan/Brown	0	MP 5210, MP 5220, MP 5230, MP 5240	1 to 2 Minutes
MP 5203 Activator to be used with MP 5250. Use for fast fixture times in high speed applications.	10 cps to 20 cps	Tan/Brown	0	MP 5250	30 to 45 Seconds
MP 5204 Activator to be used with MP 5255. General purpose, fixture time in under 1 minute.	10 cps to 20 cps	Tan/Brown	0	MP 5255	30 to 45 Seconds

Packaging: MP 5200 Primers are available in one liter and one gallon containers. Special packaging is available upon request.

MAXIMUM PERFORMANCE SERIES

UV-Curing Adhesives

TECH TIP

Quality you can depend on! Backed by a organization that is dedicated to being responsive to customers needs, offering new and impressive levels of performance and value.

The **MP 5300 SERIES** is made up of a complete range of UVcuring adhesives that are used in a diverse range of assembly applications. These applications include bonding, sealing, coating, tacking, potting, and encapsulating. They are used in a wide range of product assembly applications that include automotive, electronic, medical, industrial, etc. Engineers have found that the **MP 5300 SERIES** is a essential tool in improving overall product quality, lowering per unit cost, reducing processing time, and allows for innovative design solutions. The **MP 5300 SERIES** are single component, solvent free materials that cure in seconds when exposed to UV/visible light, and have been engineered to meet specific application requirements.





COLOR
VISCOSITY
GAP FILLING
SPECIFIC GRAVITY
TENSILE STRENGTH
TEMP RANGE
COEFFICIENT OF THERMAL EXPANSION

MP 5300 SERIES, Maximum Performance UV Curables

MP 53020 General purpose bonding, medium viscosity, rapid curing adhesive. High strength, with good impact resistance.	Clear	2,200 cps	0.010	1.1	3,800 psi	-60 to 350° F	85×10^{-6}
MP 53021 Flexible, with excellent strength properties. Resist vibration and shock. Low viscosity, ideal for close mating parts.	Clear	750 cps	0.008	1.0	4,200 psi	-60 to 350° F	85×10^{-6}
MP 53022 High viscosity, rapid curing adhesive, with maximum gap filling properties.	Clear	6,000 cps	0.015	1.1	3,800 psi	-60 to 375° F	85×10^{-5}
MP 53023 Low viscosity, excellent penetrating properties. Ideal for bonding tight fitting parts, shallow potting applications, and coating applications.	Clear	100 cps	0.006	1.1	4,200 psi	-60 to 350° F	85×10^{-5}
MP 53024 Excellent for glass to metal applications. Medium viscosity, good impact and temperature resistance.	Clear	3,200 cps	0.010	1.1	4,000 psi	-60 to 375° F	85×10^{-6}
MP 53037 Medium viscosity, flexible bond, resistant to vibration and shock. Excellent for plastic, metal, and glass applications.	Clear	2,500 cps	0.010	1.1	3,200 psi	-60 to 375° F	85×10^{-8}
MP 53301 Ideal for tight fitting plastic components, pvc tubing, polycarbonate, etc. Creates a flexible joint when cured.	Clear	200 cps	0.006	1.1	4,000 psi	-60 to 350° F	85×10^{-6}
MP 53344 Plastic bonding, medium viscosity, fast curing. Extremely versatile adhesive that can be easily modified to fit specific application needs.	Clear	2,500 cps	0.010	1.1	3,000 psi	-60 to 275° F	85×10^{-4}
MP 53347 Provides a tough, high peel, and impact resistant bond. Medium viscosity, bonds a wide range of plastics.	Clear	8,000 cps	0.020	1.12	3,000 psi	-60 to 275° F	85×10^{-4}

Packaging: MP 5300 Series products are available in 50 mil, 1 liter, and 15 liter pail. Special packaging is available upon request.

MAXIMUM PERFORMANCE SERIES

One and Two Part Epoxies

The **MP 5400 SERIES** offers a complete line of one and two part epoxies for structural bonding, potting, and encapsulating applications. These products offer engineers maximum design versatility by providing the following features and benefits:

- Superior bond strengths
- Dependable performance
- Excellent aging and weathering properties
- Good impact and vibration resistance
- Good resistance to high temperature and humidity
- Versatile, bonds a wide range of similar and dissimilar materials
- Cure at room temperature or can be accelerated with heat
- Solvent free
- Good gap filling characteristics
- Wide range of products that provide cure speeds, viscosities, and performance properties, to meet specific requirements
- Improves finished product quality
- Replaces mechanical fastening devices
- Lowers cost





The **MP 5400 SERIES** represents the most comprehensive family of products to meet your application requirements. They are conveniently packaged in 50 mil, and 400 mil dual syringe cartridges. This takes all the guess work out of using two component materials. This offers significant benefits for production personnel:

- No mixing, measuring, or weighing . . .
ITS ALREADY DONE . . .
- No contact with material.
- No mess.
- No waste.
- Easy to use, right from the cartridge.
- Saves valuable production time.
- No clean up.

	RATIO	VISCOSITY	COLOR	WORK LIFE (MINUTES)	SHEAR STRENGTH PSI	DIELECTRIC STRENGTH	HARDNESS SHORE D
MP 5400 SERIES, Maximum Performance Epoxies							
Two Part Adhesives:							
MP 5405 General purpose fast setting, 5 minute worklife epoxy. Forms a rigid bond, machinable, clear, flowable, low odor material.	1 to 1	12,500	Clear	3-5 Min.	2,000-4,000 psi	400 Volts/Mils	80
MP 5405BK General purpose fast setting, 5 minute work life epoxy. Forms a rigid bond, machinable, black, flowable, low odor material.	1 to 1	13,000	Black	3-5 Min.	2,000-4,000 psi	400 Volts/Mils	80
MP 5405NS General purpose, non sag material, ideal for applications that require maximum gap filling or high viscosity epoxy. Fast setting, 5 minute worklife, clear.	1 to 1	90,000	Clear	3-5 Min.	2,000-4,000 psi	400 Volts/Mils	80
MP 5405Flex Toughened, 5 minute epoxy. Excellent impact resistance, good peel strength, and flexibility.	1 to 1	9,500	Clear	3-5 Min.	2,000-4,000 psi	400 Volts/Mils	65
MP 5430 General purpose, 20 minute worklife. Amber color, forms a tough, rigid bond.	1 to 1	13,000	Amber	20-30 Min.	2,000-4,000 psi	400 Volts/Mils	80
MP 54110 Fast curing, flexible, excellent weather resistance, bonds well to glass, metal, and plastic. Resist fuel and solvent environments, with good impact resistance.	1 to 1	45,000	Amber	9-12 Min.	2,000-4,000 psi	400 Volts/Mils	70
MP 54110GR Fast curing, good impact resistance and peel strength. Excellent for metal bonding or metal to dissimilar surfaces. Gray in color.	1 to 1	45,000	Gray	9-12 Min.	2,000-4,000 psi	400 Volts/Mils	70
MP 54125 Good peel strength, higher temperature resistance, medium open time for part adjustment and alignment.	1 to 1	48,000	Translucent	25 Min.	2,000-4,000 psi	400 Volts/Mils	70
MP 54125GR Gray color makes it ideal for aluminum and metal bonding. Flexible, toughened epoxy, with good impact resistance.	1 to 1	47,000	Gray	25 Min.	2,000-4,000 psi	400 Volts/Mils	70
MP 54190 Long work life, with good peel strength. Maximum adjustment and positioning time.	1 to 1	15,000	Translucent	70-100 Min.	3,300-4,000 psi	400 Volts/Mils	70
MP 54190GR Toughened epoxy, with good peel strength, impact resistance, and open time. Bonds metals, plastics, and many dissimilar materials. Gray in color.	1 to 1	60,000	Gray	70-100 Min.	3,300-4,000 psi	400 Volts/Mils	60
MP 54270 Potting compound for electronic applications. Non corrosive material, with good work life.	1 to 1	20,000	Clear	60 Min.	1,800-3,000 psi	550 Volts/Mils	85

MP 5400 SERIES, Maximum Performance Epoxies (continued)

	RATIO	VISCOSITY	COLOR	WORK LIFE (MINUTES)	SHEAR STRENGTH PSI	DIELECTRIC STRENGTH	HARDNESS SHORE D
MP 54270BK Long worklife potting compound ideal for tamper proofing electronic assemblies. Non corrosive with good flow properties, black color.	1 to 1	20,000	Black	60 Min.	1,800-3,000	550 Volts/Mils	85
MP 54420 High performance epoxy, excellent shear and peel strength. High viscosity for maximum gap filling.	2 to 1	43,000	Off-White	20-30 Min.	4,000-5,000	500 Volts/Mils	75
MP 54460 High performance epoxy, high peel and shear strength. Longer work life.	2 to 1	40,000	Off-White	50 Min.	4,000-5,000	500 Volts/Mils	80
MP 54216CL Long work life, flexible epoxy. Bonds dissimilar materials, 18 hour fixture times.	1 to 1	10,000	Translucent	120 Min.	2,500-3,000	400 Volts/Mils	70
MP 5471 Fast setting, high temperature resistance, ideal for speaker applications.	10 to 1	3,500	Brown/Amber	1-3 Min.	3,300	400 Volts/Mils	80
MP 54750 Versatile epoxy used for bonding and potting applications. Excellent resistance to water, acids, bases, and most organic solvents.	1 to 1	15,000	Clear	60-90 Min.	3,400	400 Volts/Mils	80
MP 5434 Urethane based material excellent for bonding metal and dissimilar materials. Also available in high viscosity version.	2 to 1	13,000	Translucent	5 Min.	3,500	400 Volts/Mils	35

Packaging: MP 5400 Series Two Part Epoxies are available in 50 mil kits, 400 mil kits, and 10 gallon kits. Special packaging is available upon request.

	RATIO	SPECIFIC GRAVITY	VISCOSITY	COLOR	HEAT CURE CYCLE	TENSILE STRENGTH PSI	SHEAR STRENGTH PSI	HARDNESS SHORE D	TEMP RANGE
ONE PART HEAT CURES									
MP 5400 One part, heat cure, non-sag, structural adhesive. Ideal for bonding magnets, steel, aluminum, glass, some plastics, etc.	1 Part	1.41	Paste	Gray	@250° F - 15 Min. @300° F - 10 Min. @350° F - 2 Min.	6,400	3,100	85 Shore D	-40 to 400° F
MP 5401 One part, heat cure, forms a tough, durable bond. Excellent high performance at elevated temperatures and superior sag control.	1 Part	1.41	Paste	Gray	@250° F - 10 Min. @300° F - 2 Min. @350° F - 1 Min.	6,770	3,200	85 Shore D	-40 to 400° F
MP 5402NMF One part, heat cure, for electrical applications, where insulating properties are required.	1 Part	1.41	Paste	Cream	@250° F - 30 Min. @300° F - 10 Min. @350° F - 5 Min.	7,000	3,500	85 Shore D	-40 to 400° F
MP 5403FLEX One part, heat cure formulated to provide excellent impact and shock resistance. Ideal for bonding dissimilar surfaces.	1 Part	1.35	Paste	Gray	@250° F - 30 Min. @300° F - 15 min. @350° F - 5 Min.	6,400	3,100	45 Shore D	-40 to 400° F
MP 5404FS One part heat cure that cures rapidly. Cures in seconds by induction or infra-red heating.	1 Part	1.41	Paste	Gray	@250° F - 10 Min. @300° F - 2 Min. @350° F - 1 Min.	6,770	3,200	85 Shore D	-40 to 400° F

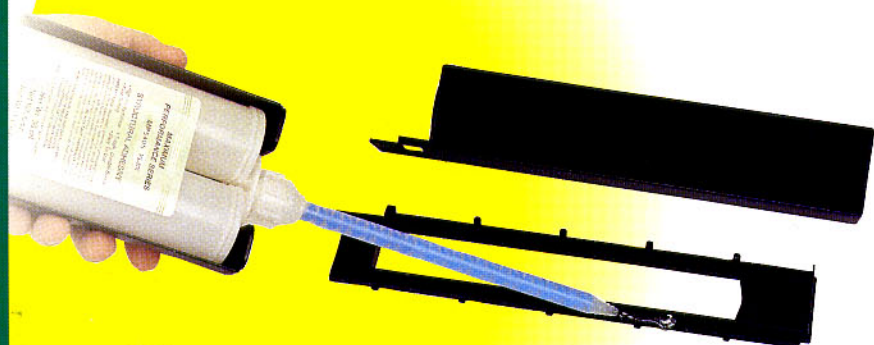
Packaging: MP 5400 Series One Part Epoxies are available in 6 ounce cartridges, 12 ounce cartridges and 5 gallon pails. Special packaging is available upon request.



MAXIMUM PERFORMANCE SERIES

Two Part Methacrylates

The **MP 55000 SERIES** is a complete family of two part methacrylate adhesives. These products are specifically engineered for structural bonding of nearly all thermoplastics, metals, and composite materials. They offer exceptional bond strength and are extremely durable adhesives. The **MP 55000 SERIES** provides outstanding performance in a wide range of applications in the transportation, solid surface, industrial, construction, and marine market areas.



	RATIO	COLOR	VISCOSITY	WORK TIME	FIXTURE TIME	ALUMINUM	STEEL	FIBERGLASS	ACRYLIC	SMC	ABS
MP 55000 SERIES, Maximum Performance Methacrylates											
Two Part Methacrylate:											
MP 55300 General purpose used for bonding plastics and metal components. Fast cure time for high speed assembly.	1 to 1	Natural	Non-Sag	6-8 Min.	10-15 Min.	2,450	3750	S-F	S-F	S-F	S-F
MP 55305 High impact resistance for metals and plastics. Tough, flexible adhesive with a fast cure time for high speed assembly.	1 to 1	Straw	Non-Sag	2-3 Min.	5-6 Min.	2,450	3500	S-F	S-F	S-F	S-F
MP 55310 Excellent metal bonder with good results on plastics as well. Medium cure speed for part positioning and adjustment.	1 to 1	Natural	Non-Sag	10-12 Min.	15-25 Min.	3,700	4200	S-F	S-F	S-F	S-F
MP 55315 High impact resistance for metals and plastics. Tough, flexible bonds with a fast cure speed.	1 to 1	Straw	Non-Sag	5-6 Min.	15-17 Min.	2,400	3800	S-F	S-F	S-F	S-F
MP 55325 High impact, maximum flexibility and elongation. High tensile shear strength. Fast cure speed.	1 to 1	Straw	Non-Sag	3-4 Min.	10-11 Min.	2,700	4700	S-F	S-F	S-F	S-F
MP 55350 Long open time with good work life. Bonds well to most plastics, composites, and metals.	1 to 1	Natural	Non-Sag	60-90 Min.	30-40 Min.	2,350	3,200	S-F	S-F	S-F	S-F
MP 55360 Faster curing version of MP 55350.	1 to 1	White	Non-Sag	12-15 Min.	20-25 Min.	2,350	3,200	S-F	S-F	S-F	S-F
MP 55370 Bonds well to most plastics, composites, and metals. Fast curing.	1 to 1	Natural	Non-Sag	3-4 Min.	7-10 Min.	2,450	3,750	S-F	S-F	S-F	S-F
MP 55420 Superior composite and fiberglass adhesive. Durable bonds with excellent weathering properties. Fast curing.	1 to 1	Blue/Green	Non-Sag	8-9 Min.	12-15 Min.	2,600	3,500	S-F	S-F	S-F	S-F
MP 55500 Specifically engineered for noryl bonding. Offers maximum moisture and solvent resistance, with rapid cure time.	1 to 1	Black	Non-Sag	1-3 Min.	7-8 Min.	2,500	3,750	S-F	S-F	S-F	S-F
MP 55505 Metal bonder for extremely harsh environments. Excellent moisture and chemical resistance. Withstands elevated temperatures. Low odor.	1 to 1	Straw	Non-Sag	5-6 Min.	15-18 Min.	2,200	2,800	S-F	S-F	S-F	S-F
MP 55600 Engineered for solid surface bonding applications. Clear in color. Excellent for clear plastic bonding. Sandable.	1 to 1	Clear	Self-leveling	16-20 Min.	22-27 Min.	N/A	N/A	N/A	S-F	N/A	S-F
MP 55615 Faster curing version of MP 55600. (Sandable in 15 minutes)	1 to 1	Clear	Self-leveling	12-15 Min.	15-20 Min.	N/A	N/A	N/A	S-F	N/A	S-F
MP 55620 Faster curing version of MP55610.	1 to 1	Clear	Self-leveling	3-4 Min.	8-10 Min.	N/A	N/A	N/A	S-F	N/A	S-F

Products are conveniently packaged in 50 mil and 400 mil mix packs. No weighing or manual mixing is needed. This convenient packaging minimizes production personnel coming in contact with the adhesive. Ten gallon kits are available for automated applications. Special packaging is available upon request.