TDS 870634

The Paste or Liquid Systems in ready-to-mix premeasured quantities Mastershop Epoxy Series

For Maintenance, Repair, Restoration & Artwork, Machine Shop, Patching, Rebuilding & Resurfacing









M A S T E R S H

From the remarkable success of filled epoxies in premeasured packages, ABATRON developed the MASTERSHOP Series with the latest technological improvements. The resin/hardener [(A)/(B)] kit package remains unchanged: the can of resin (A) is only partially filled so that the preweighed hardener (B) container can be emptied into it for mixing. There is no need to measure or transfer to mixing containers. However, if only part of the contents is needed, the mixing proportions are shown as part by weight (pbw) or parts by volume (pbv).

The MASTERSHOP compounds offer the following advantages: ■ Superior adhesion to most materials. ■ Almost no shrinkage. ■ The longest shelf life. ■ Resistance to: water, alkalies, diluted acids, heat (they don't melt, and withstand up to 100°C, or 160°C for the "H" versions), many oils, solvents and other chemicals. ■ They can be applied in any thickness. ■ The standard compounds harden within hours at room temperature. Complete cure needs 1-10 days at room temperature, or 0.5-2 hours at 80-120°C. ■ Averages tested for the standard versions: Hardness: 83-87 Shore D. Shrinkage: 0.0005cm/cm. Adhesive tensile shear: 2500-3000 psi. Compression str.: 9000-13000 psi. Tensile: 5000-6000 psi. Flexural: 5000-7000 psi.

All Mastershop compounds can be intermixed and blended for intermediate properties in any ratio. For instance, METALFIX with GRAFEPOX to improve the machinability of the former or the toughness of the latter; FERROBOND/CARBEPOX, WOODEPOX/GRAFEPOX, BRONZWELD/WEARSURF, etc.

	Aluminum-filled	Ferrous-metal-filled	Bronze-filled
Pastes	METALFIX-P Aluminum-filled structural adhesive putty. A: 15 lbs/gal; B: 8 lbs/gal. Mixing ratios, A/B: 9/1 pbw (5/1 pbv) Pot life: 1 hour. Gray. Machinable, corrosion resistant, versatile "metal-plastics" alloy. Ideal to patch, bond, resurface metal, structural components, patterns, molds, pipes, tanks, sculptures, appliances. It forms permanent bonds with metals, ceramics, glass, fiberglass and most materials.	FERROBOND-P Steel-filled structural adhesive putty. A: 26 lbs/gal; B: 8 lbs/gal. Mixing ratios, A/B: 9/1 pbw (10/3.6 pbv). Pot life: 1 hour approx. Dark gray. The latest "steel-plastics alloy". Ideal to repair or fill metal components, castings, tanks, magnetic fixtures. Heavy, hard, wear resistant, machinable, magnetic. Preferred to METALFIX-P where heavier weight, magnetability or highest heat transfer are the main criteria.	BRONZWELD-P Bronze-filled structural adhesive putty. A: 15 lbs/gal; B: 8 lbs/gal. Ratios, A/B 9/1 pbw (5/1 pbv). Pot life: 1 hour approx Bronze color. Used like METALFIX or FERROBOND, where bronze appearance is needed. E.g.: statuary, antiques, boats, transportation equipment, vases, railings, metal furniture, metal trim, frames, instruments
High-Temperature Pastes	METALFIX-PH METALFIX-P for up to 160°C under stress. A: 15 lbs/gal; B: 9.8 lbs/gal. Ratios, A/B: 100/8.3 pbv (100/12.6 pbv). Pot life: 5-8 hours. Gray. It requires heat cure: 1-12 hrs. at 80-150°C. Used when it must resist up to 160°C in operation. It also offers superior resistance to strong solvents and other chemicals.	FERROBOND-PH FERROBOND-P for up to 160°C under stress. A: 26 lbs/gal; B: 9.8 lbs/gal. Ratios, A/B: 100/5.5 pbw (100/14.5 pbv). Pot life: 5-8 hours. Dark gray. Heat cure: 1-12 hrs. at 80-150°C. Used when it must resist up to 160°C in operation. Superior resistance to strong solvents and other chemicals.	BRONZWELD-PH BRONZWELD-P for up to 160°C under stress. A: 15 lbs/gal; B: 9.8 lbs/gal. Ratios, A/B: 100/8.3 pbw (100/12.6 pbv). Pot life: 5-8 hours. Bronze color. Heat cure: 1-12 hrs. at 80-150°C. Used when it must resist up to 160°C in operation. Superior resistance to strong solvents and other chemicals.
Fluids	METALFIX-L Fluid-pourable version of METALFIX-P. A: 14.8 lbs/gal; B: 8 lbs/gal. Mixing ratios, A/B: 9/1 pbw (5/1 pbv). Pot life: 1 hour approx For patterns, molds, prototypes, casting and all applications where a castable, fluid METALFIX-P is needed. Excellent for tooling.	FERROBOND-L Fluid-pourable FERROBOND-P. A: 23 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 9/1 pbw (100/32 pbv). Pot life: 1 hour approx. Casting version of FER-ROBOND-P. Chosen when flowing consistency is needed for pouring. Excellent for tooling.	BRONZWELD-L Casting version. Custom formulated upon request.
High-Temperature Fluids	METALFIX-LH METALFIX-L for up to 160°C under stress. A: 14.8 lbs/gal; B: 9.8 lbs/gal. Ratios, A/B: 100/8.85 pbw (100/13.1 pbv). Pot life: 5-8 hours. Gray. It requires heat cure: 1-12 hrs. at 80-150°C. It also offers superior resistance to strong solvents and other chemicals.	FERROBOND-LH FERROBOND-L for up to 160°C under stress. A. 23 lbs/gal, B. 9.8 lbs/gal. Mixing ratios, A/B: 100/6.9 pbw (100/16.1 pbv). Pot life: 5-8 hours. Dark gray. It requires heat cure: 1-12 hrs. at 80-150°C. Superior resistance to strong solvents and other chemicals.	BRONZWELD-LH Casting version for high temperatures. Custom formulated upon request.
Low Viscosity	METALFIX-LL Lower-viscosity METALFIX-L. A: 14.8 lbs/gal, B: 8 lbs/gal. Rations, A/B: 9/1 pbw (5/1 pbv). Pot life: 1 hour approx. Same pot life and reactivity as METALFIX-L. Slightly lower heat and chemical resistance. For intricate or critical casting where thinnest, bubble-free flow is needed.	FERROBOND-LL Lower-viscosity FERROBOND-L. A: 23 lbs/gal, B: 8 lbs/gal. Ratios, A/B. 4/1 pbw (10/7 pbv). Pot life: 5 minutes. Slightly lower heat and chemical resistance than FERROBOND-L. For intricate or critical casting where thinnest, bubble-free flow is needed.	BRONZWELD-LL Lower-viscosity casting version. Custom formulated upon request.

FERROBOND-F

unreactive.

5-minute-cure FERROBOND-P for quick

A: 26 lbs/gal; B: 9.2 lbs/gal. Ratios, A/B:

4/1 pbw (10/7 pbv). Pot life: 5 minutes.

Dark gray. Used for fast hardening, or in

cold or freezing environment, where

other compounds are too slow or

BRONZWELD-F

5-minute cure version.

Custom formulated upon request.

5-minute Cure

METALFIX-F

unreactive.

5-minute cure METALFIX-P for quick

A: 15 lbs/gal; B: 9.2 lbs/gal. Ratios, A/B:

minutes. Gray. Used for fast hardening.

or in cold or freezing environment, where

100/37 pbw (10/6 pbv). Pot life: 5

other compounds are too slow or







Stainless-steel-filled

SS-BOND-P

SS-steel-filled structural adhesive putty. A: 26 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 9/1 pbw (10/3.6 pbv). Pot life: 1 hour approx. Gray. Used where a filler is needed that is as heavy, hard and wear-resistant as iron, but rustproof and more chemical resistant. Common in food and medical applications and with stainless-steel equipment.

Wear resistance Composite-filled

WEARSURF-P

Wear-resistant structural adhesive putty. A: 17 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 9/1 pbw (4/1 pbv). Pot life: 1 hour approx. Dark gray. Exceptional wear-resistance and hardness. Self-lubricating. Ideal to restore or repair worn surfaces, rebuild or reshape new surfaces, as in pumps, shafts, bearing or sliding surfaces, metal-forming dies, patterns, tools, machinery.

Abrasion resistance Carbide-ceramic-filled

CARBEPOX-P

Wear-resistant structural adhesive putty. A: 16 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 8/1 pbw (100/22 pbv). Pot life: 1 hour approx. Dark gray. For protection with a carbide hard layer against abrading flow of dry or wet materials, such as in chutes, pipes, stacks, slurry beds, pumps. Tenacious adhesion to metal, concrete, glass and most surfaces.

Lubricity Graphite-filled

GRAFEPOX-P

Graphite-filled structural adhesive putty. A: 14 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 5/1 pbw (3/1 pbv). Pot life: 1 hour approx. Black. To build up low-friction surfaces for shafts or sliding parts in industrial, marine & other uses. It replaces guaiacum ("lignum vitae") in turbine generators. It improves time, money & efficiency in most applications.

SS-BOND-PH

SS-BOND-P for up to 160°C under stress.

A: 26 lbs/gal, B: 9.8 lbs/gal, Ratios, A/B: 100/5.5 pbw (100/14.5 pbv). Pot life: 5-8 hours. Dark gray. Heat cure: 1-12 hrs. at 80-150°C. It also offers superior resistance to strong solvents and other chemicals.

WEARSURF-PH

WEARSURF-P for up to 160°C under stress.

A: 17 lbs/gal; B: 9.8 lbs/gal. Ratios, A/B: 100/8.4 pbw (100/14.5 pbv). Pot life: 5-8 hours. Dark gray. Heat cure: 1-12 hrs. at 80-150°C. It also offers superior resistance to strong solvents and other chemicals.

CARBEPOX-PH

CARBEPOX-P for up to 160°C under stress

A: 16 lbs/gal; B: 9.8 lbs/gal. Ratios, A/B: 100/5.3 pbw (100/8.6 pbv). Pot life: 5-8 hours. Dark gray. Heat cure: 1-12 hrs. at 80-150°C. Superior resistance to strong solvents and other chemicals.

GRAFEPOX-PH

GRAFEPOX-P for up to 160°C under stress.

A: 14 lbs/gal; B: 9.8 lbs/gal, Ratios, A/B: 100/8.4 pbw (100/12 pbv). Pot life: 5-8 hours. Black. Heat cure: 1-12 hrs. at 80-150°C. Superior resistance to strong solvents and other chemicals.

SS-BOND-L

Casting version.

Custom formulated upon request.

WEARSURF-L

Fluid, castable WEARSURF-P.
A: 17 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 9/1 pbw (4/1 pbv). Pot life: 1 hour approx. Dark gray. Preferred for pouring patterns, dies, molds, engraving and high-precision reproductions.

CARBEPOX-L

Castable CARBEPOX-P.

A: 16 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 8/1 pbw (100/22 pbv). Pot life: 1 hour approx. Cast abrasion-resistant layers on/into abraded, pitted, porous surfaces or molds. Used when abrasion-resistance is more important than toughness.

GRAFEPOX-L

Castable GRAFEPOX-P.

A: 14 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 5/1 pbw (3/1 pbv). Pot life: 1 hour approx. Black. Used where molds, patterns or other factors require pourable castability.

SS-BOND-LH

Casting version for high temperatures.
Custom formulated upon request.

WEARSURF-LH

WEARSURF-L for up to 120°C under stress.

A: 17 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 100/8.4 pbw (100/14.5 pbv). Pot life: 5-8 hours. Dark gray. Heat cure: 1-12 hrs. at 80-120°C. Superior resistance to strong solvents and other chemicals.

CARBEPOX-LH

CARBEPOX-L for up to 160°C under stress.

A: 16 lbs/gal; B: 9.8 lbs/gal. Ratios, A/B: 100/5.3 pbw (100/8.6 pbv). Pot life: 5-8 hours. Dark gray. Heat cure: 1-12 hrs. at 80-150°C. Superior resistance to strong solvents and other chemicals.

GRAFEPOX-LH

GRAFEPOX-L for up to 160°C under stress.

A: 14 lbs/gal; B: 9.8 lbs/gal. Ratios, A/B: 100/8.4 pbw (100/12 pbv). Pot life: 5-8 hours. Black. Heat cure: 1-12 hrs. at 80-150°C. Superior resistance to strong solvents and other chemicals.

SS-BOND-LL

Lower-viscosity casting version.

Custom formulated upon request.

WEARSURF-LL

Lower-viscosity WEARSURF-L. A: 17-lbs/gal; B: 8 lbs/gal. Ratios, A/B: 9/1 pbw (4/1 pbv). Pot life: 1 hour approx. For hubble-free casting and

9/1 pbw (4/1 pbv). Pot life: 1 hour approx. For bubble-free casting and fine details, or to permit addition of other fillers, laminating with reinforcing fibers or other fillers.

CARBEPOX-LL

Lower-viscosity CARBEPOX-L.

A. 16 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 8/1 pbw (100/22 pbv). Pot life: 1 hour approx. For bubble-free castings, and details, smooth smooth sealing and abrasion-resistant layers.

GRAFEPOX-LL

Lower-viscosity GRAFEPOX-L. A: 14 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 5/1 pbw (3/1 pbv). Pot life: 1 hour approx. Black. Excellent for intricate molds and carving, alone or blended

SS-BOND-F

5-minute-cure version.

Custom formulated upon request

WEARSURF-F

5-minute-cure version.
Custom formulated upon request.

CARBEPOX-F

5-minute-cure version.
Custom formulated upon request.

GRAFEPOX-F

with METALSET-L

5-minute-cure version
Custom formulated upon request.

MASTERSHOP SERIES







Underwater & cold applications

UW-BOND-P

Under/above water & cold weather adhesive patching and resurfacing putty. A: 12 lbs/gal; B: 11 lbs/gal. Ratios, A/B: 1/1 pbw or pbv. Pot life: 0.5 hour approx. Gray (white/black). Heavy-duty flexibilized system with remarkable versatility. Underwater, in cold weather (30°F), on dry or wet surfaces for fieldor in-house repairs, maintenance, resurfacing, bonding. Standard with utilities, transport, marine and other industries to repair equipment and installations.

Anti-fouling protection

AF-BOND-PAntifouling underwater adhesive putty, filling, patching and resurfacing compound.

A: 18 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 9/1 pbw (4/1 pbv). Pot life: 0.5 hour approx. Dark red. Marine-growth-resistant patching and resurfacing paste for hulls, keels, underwater structures. Applied underwater, dry, or in cold weather, it meets antifouling specifications for boats, shipyards and structures.

Wood restoration WOODEPOX-P

Lightweight structural adhesive filler and replacement for wood and other materials.

A: 4 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 9/1 pbw (18:/ pbv). Pot life: 1 hour approx. Buff color. It repairs, fills & replaces wood without the shrinkage and limitations of wood fillers. It adds inches to broken parts. Water, weather and heat resistant. Lightweight dielectric. It bonds to most rigid materials.

Clear resins

Structural & dielectric adhesive, coating, wood consolidant, laminating & casting resin.

A: 9.7 lbs/gal; B: 8.2 lbs/gal. Ratios, A/B: 100/14 pbw (100/16.6 pbv). Pot life: 40 minutes. Clear. Highest rigidity, toughness, chemical & heat resistance (120°C) obtainable with a clear room-temperature-curing epoxy. Used neat or blended with fillers, fibers and pigments. It bonds to most materials. Exceptionally versatile.

UW-BOND-L

Castable UW-BOND. Binder for aggregates that bond to underwater, dry or cold surfaces.

A: 11 lbs/gal; B: 11 lbs/gal. Ratios, A/B: 1/1 pbw or pbv). Pot life: 0.5 hour approx. Gray (white/black). Can be poured or spread neat or mixed with sand. Fresh concrete poured on concrete or other surfaces coated with UW-BOND-L develops a permanent structural bond. Excellent to resurface wet, pitted and corroded areas.

AF-BOND-L

Pourable AF-BOND.

A: 18 lbs/gal; B: 8 lbs/gal. Ratios, A/B: 9/1 pbw (4/1 pbv). Pot life: 0.5 hour approx. Dark red. Antifouling coating and resurfacer. Excellent anti-growth binder for aggregates, sand or other fillers, to be poured or spread on underwater or dry surfaces.

WOODEPOX-PH

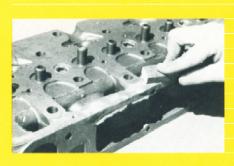
High-temperature version of WOODEPOX-P, to resist up to 120°C under stress.

A: 4 lbs/gal; B: 9.8 lbs/gal. Ratios, A/B: 100/18.8 pbw (100/8.2 pbv). Pol life: 5-8 hours approx. Buff color. It requires heat cure: 1-12 hours at 80-120°C. It also offers superior resistance to strong solvents and other chemicals.

EPOXIT-LH

EPOXIT-L to resist up to 160°C under stress.

A: 9.7 lbs/gal; B: 9.8 lbs/gal. Ratios, A/B: 100/28 pbw. Pot life: 5-8 hrs. It requires heat cure. 1-3 hrs. at 100-150°C. Amber. Superb rigidity, toughness, chemical & dimensional stability. Much higher chemical and heat resistance than with EPOXIT-L. Superior structural & dielectric properties. It bonds to most materials







The above information is the result of accurate laboratory and field tests. However, no guarantee is offered, as uses and applications are beyond our control. The user is urged to test and adapt the above data in his own conditions and environment previous to product adoption. Specifications may be subject to state-of-the-art changes.

