

Surface Preparation

Proper surface preparation is critical to the long term performance of this product. The exact requirements vary with the severity of the application, expected service life, and initial substrate conditions.

Optimum preparation will provide a surface thoroughly cleaned of all contaminants and roughened to an angular profile between 75-125 µm (3-5 mil). This is normally achieved by initial cleaning and degreasing and then abrasive blasting to a cleanliness of *White Metal (Sa 3/SP5) or Near-White Metal (Sa 2.5/SP10)* followed by removal of all abrasive residues.

Mixing

To facilitate mixing and application, material temperature should be between 21°-32°C (70°-90°F). Each kit is packaged to the proper mix ratio. If further proportioning is required, they should be divided according to the mix ratios:

Mix Ratio	By Weight
A : B	2.3 : 1

When mixing with the enclosed tool, place both components onto a clean, dry, non-porous surface (usually plastic). Begin mixing with the enclosed tool using a slow figure eight pattern, periodically scraping the mixing surface and tool to insure no unmixed residue remains on either surface. Continue until the material is completely mixed, indicated by a homogeneous color with no streaks.

If mixing by power tool, place both components in the Part A container, and mix at a low speed until a homogeneous color is achieved. To assure complete mixing, finish blending by hand as described above.

Working Time – Minutes

	10°C (50°F)	16°C (60°F)	25°C (77°F)	32°C (90°F)	43°C (110°F)
1.5 liters	90 min.	68 min.	40 min.	25 min.	20 min.
5 liters	75 min.	50 min.	30 min.	20 min.	15 min.
20 kg (44 lbs)	60 min.	35 min.	20 min.	15 min.	10 min.

The chart above defines the practical working time of ARC BX1(E), starting from when mixing begins.

Application

ARC BX1(E) must be applied at a minimum thickness of 6 mm (240 mil). Minimum application temperature is 10°C (50°F). In certain applications requiring additional support, it may be advantageous to weld expanded metal mesh onto the metal substrate prior to application of the ARC BX1(E). Using the enclosed plastic application tool or trowel: press the material into the surface profile to completely wet out the surface for proper adhesion. Once the material is placed, it may be smoothed utilizing a variety of methods.

Prior to its light load cure state, ARC BX1(E) may be overcoated with any of the ARC epoxy materials with the exception of ARC vinyl ester based coatings. If it has cured to the point of "Light Load" described below, the surface should be roughened and dust or other contaminants removed prior to top coating. Prior to curing to "Light Load" no surface preparation is required so long as the surface has not been contaminated. If required, ARC BX1(E) can be ground using a rotary grinding tool or machined with polycrystalline diamond tools.

Coverage

Thickness	Unit size	Coverage
6 mm (240 mil)	1.5 liters	0.25 m ² (2.69 ft ²)
	5 liters	0.85 m ² (8.97 ft ²)
	20 kg (44 lbs)	1.45m ² (15.6 ft ²)

Curing Schedule

	10°C (50°F)	16°C (60°F)	25°C (77°F)	32°C (90°F)	43°C (110°F)
Tack Free	10 hrs.	7 hrs.	4 hrs.	2 hrs.	30 min.
Light Load	22 hrs.	16 hrs.	6 hrs.	5 hrs.	80 min.
Full Load	38 hrs.	30 hrs.	16 hrs.	11 hrs.	7 hrs.
Full Chemical	100 hrs.	72 hrs.	36 hrs.	30 hrs.	24 hrs.

Full chemical properties can be achieved rapidly by force curing.

To force cure, first allow the material to become tack free, then heat to 70°C (158°F) for 4 hours.

Clean Up

Use commercial solvents (Acetone, Xylene, Alcohol, and Methyl Ethyl Ketone) to clean tools immediately after use.

Once cured, the material would have to be abraded off.

Safety

Before using any products, review the appropriate Safety Data Sheet (SDS) or Safety Sheet for your area.

Follow standard confined space entry and work procedures, if appropriate.

Shelf life (in unopened containers): 2 years [when stored between 10°C (50°F) and 32°C (90°F) in dry, cool, covered facility]