

Surface Preparation

Proper surface preparation is critical to the long term performance of ARC BX5(E). 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 optimally achieved by initial cleaning and degreasing; 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 contains two pre-measured components in proportion as per the correct product mix ratio. If further proportioning is required, they should be divided according to the mix ratios:

Mix Ratio	By Weight
A : B	4 : 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. ARC BX5(E) is a rapid cure system; its mixing time should not exceed 1-2 minutes, followed by immediate application. 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	16°C	25°C	32°C	43°C	NR = Not Recommended This chart defines the practical working time of ARC BX5(E), starting from when mixing begins.
	50°F	60°F	77°F	90°F	110°F	
0.75 liters	9 min.	8 min.	6 min.	2 min.	NR	
2.5 liters	7 min.	5 min.	4 min.	NR	NR	

Application

ARC BX5(E) must be applied at a minimum thickness of 3 mm (120 mils). 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 BX5(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 BX5(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 BX5(E) can be ground using a rotary grinding tool or machined with polycrystalline diamond tools.

Coverage

Thickness	Unit size	Coverage
3 mm (120 mil)	0.75 liters	.25 m ² (2.69 ft ²)
	2.5 liters	.83 m ² (8.97 ft ²)

Curing Schedule

	10°C	16°C	25°C	32°C	43°C	Full chemical properties can be achieved rapidly by force curing. To force cure, first allow the material to become tack free, and then heat to 70°C (158°F) for 4 hours.
	50°F	60°F	77°F	90°F	110°F	
Tack Free	35 min.	25 min.	15 min.	10 min.	5 min.	
Light Load	2 hrs.	1 hr.	30 min.	20 min.	10 min.	
Full Load	4 hrs.	2 hrs.	1 hr.	45 min.	30 min.	
Full Chemical	48 hrs.	36 hrs.	24 hrs.	18 hrs.	12 hrs.	

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.