

Surface Preparation

Proper surface preparation is critical to the long term performance of ARC MX FG. 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	2.5 : 1

Place required amounts of Part A and Part B on a clean, dry, non-porous surface (usually plastic) and begin mixing with the enclosed tool using a figure eight pattern, periodically scraping the mixing surface and tool to ensure 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	16°C	25°C	32°C	43°C	NR = Not Recommended This chart defines the practical working time of ARC MX FG, starting from when mixing begins.
	50°F	60°F	77°F	90°F	110°F	
1.5 liters	70 min.	60 min.	45 min.	30 min.	10 min.	
5 liters	50 min.	40 min.	30 min.	20 min.	NR	

Application

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

Coverage

Thickness	Unit size	Coverage
3 mm (120 mil)	1.5 liters	0.5 m ² (5.4 ft ²)
	5 liters	1.67 m ² (18 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	16 hrs.	7 hrs.	4 hrs.	2 hrs.	20 min.	
Light Load	36 hrs.	24 hrs.	8 hrs.	6 hrs.	90 min.	
Full Load	72 hrs.	48 hrs.	36 hrs.	20 hrs.	12 hrs.	
Full Chemical	96 hrs.	72 hrs.	48 hrs.	30 hrs.	24 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.

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