

Surface Preparation

Proper surface preparation is critical to the long term performance of ARC MX1. 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/SSPC SP5) or Near-White Metal (Sa 2 1/2 / SSPC SP10)** followed by removal of all abrasive residues.

Mixing & Application

To facilitate mixing and application, material temperature should be between 20°-25°C (68°-75°F). Each kit includes a primer kit ARC MXP (Part A and Part B), and ARC MX1 (Part A, Part B and Part C) in proportion as per the correct product mix ratio. If further proportioning is required, they should be divided according to the individual mix ratios mix ratios:

MXP: Mixing and Application

Add Primer Part B to Primer Part A, and mix thoroughly. Apply the primer uniformly to a wet film thickness (WFT) of 250-375 µm (10-15 mil), using a stiff brush, or squeegee to the prepared surface. Packages typically provide excess primer; use only the required amount.

Mix Ratio

	Mix Ratio	By Weight
ARC MXP	A : B	4.8 : 1

Working Time – Minutes

	10°C	16°C	25°C	32°C	This chart defines the practical working time of ARC MXP, starting from when mixing begins.
	50°F	60°F	77°F	90°F	
ARC MXP Primer	40 min.	30 min.	20 min.	15 min.	

MXP must be over coated within the times set forth in the MXP Overcoat Window below. Note: ARC MXP must still be tacky when applying ARC MX1.

MXP Overcoat Window – Hours

	10°C	16°C	25°C	32°C	This chart defines the overcoat window for applying ARC MX1 to ARC MXP on vertical surfaces. For horizontal surfaces it is acceptable to apply ARC MX1 immediately after application of ARC MXP primer.
	50°F	60°F	77°F	90°F	
Overcoat begin	3 hrs.	1.5 hrs.	0.8 hr.	0.5 hrs.	
Overcoat End	4.5 hrs.	3 hrs.	1.5 hrs.	1 hr.	

ARC MX1: Mixing and Application

For complete kit use add Part B to Part A and mix thoroughly. When mixing is complete, transfer approximately 1/3 of the Part C contents to the large outer mixing pail. Add the mixed Part A and B to the pail containing the Part C. Mix well and then add remaining Part C. Continue until the material is completely mixed, indicated by a uniform mix with no dry sections. For partial kit use, follow the below stated mix ratios. Apply immediately.

Working Time – Minutes

	Mix Ratio	By Weight	10°C	16°C	25°C	32°C	This chart defines the practical working time of ARC MX1, starting from when mixing begins.
			50°F	60°F	77°F	90°F	
ARC MX1	A : B : C	3.3 : 1 : 22.6	ARC MX1 50 min.	40 min.	30 min.	20 min.	

ARC MX1 may be applied by trowel, or the enclosed applicator, at a minimum thickness of 6 mm (240 mil). Minimum application temperature is 10°C (50°F). Using the enclosed plastic application tool or trowel: press the material into the previously applied MXP 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 described below ARC MX1 may be over coated with any of the ARC epoxy materials with the exception of ARC vinyl ester 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 MX1 can be ground using a rotary grinding tool or machined with polycrystalline diamond tools.

Coverage

WFT	Unit size	Coverage
6 mm (240 mil)	6 kg	0.37 m ² (3.97 ft ²)
	20 kg	1.23 m ² (13.23 ft ²)

Curing Schedule

	10°C	16°C	25°C	32°C	Note: Full mechanical 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	
Tack Free	5 hrs.	3 hrs.	2 hrs.	1 hr.	
Light Load	9 hrs.	7 hrs.	3.5 hrs.	2.5 hrs.	
Full Mechanical	48 hrs.	36 hrs.	20 hrs.	16 hrs.	
Full Chemical	108 hrs.	80 hrs.	40 hrs.	33 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]