

APPLICATION INSTRUCTIONS: ARC HT-T

Surface Preparation

Proper surface preparation is critical to the long term performance of ARC HT-T. 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 μ m (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, each part should be divided according to the following mix ratio:

Mix Ratio	By Weight	By Volume	
A : B	14.0 : 1	5.7 : 1	

Add Part B to Part A and mix thoroughly.

Continue until the material is completely mixed, indicated by a homogeneous color with no streaks.

Working Time - Minutes

	16°C	25°C	32°C	This chart defines the practical working time of
	60°F	77°F	90°F	
5 liter	60 min.	45 min.	30 min.	ARC HT-T, starting from when mixing begins.

Application

ARC HT-T can be applied at a minimum thickness of $500 \, \mu m$ ($20 \, mil$). Normal application thicknesses range from $900-1150 \, \mu m$ ($35-45 \, mil$), in one or two coats, as required. The recommended application temperature range is between 21° C (70° F) to 35° C (95° F). The minimum application temperature is 10° C (50° F). Using a trowel or plastic applicator tool, completely wet out the surface and smooth the composite material to desired thickness. Maximum recommended total film thickness is $1.5 \, mm$ ($60 \, mils$). Multiple coat applications of ARC HT-T may be accomplished, without additional surface preparation, as long as the film is free of contamination and has not cured beyond the stage stated as Overcoat End in the Curing Schedule chart below. If this period is exceeded, light roughening by sanding is required, followed by removal of abrasive residues. Since ARC HT-T does not reach full mechanical properties until it has been cured at elevated temperature, roughening by abrasive blasting is not recommended. If required, ARC HT-T can be machined using a carbide tool prior to reaching "Light Load," as described below. Otherwise use a diamond cutting tool or post grind. Prior to its light load cure state, ARC HT-T may be overcoated with any of the ARC epoxy materials with the exception of ARC vinyl ester based coatings.

Coverage

Thickness	Unit size	Coverage	
750 μm (30 mil)	5 liter	6.67 m² (71.76 ft²)	

Curing Schedule

	10°C	16°C	25°C	32°C
	50°F	60°F	77°F	90°F
Tack Free	16 hrs.	8 hrs.	4 hrs.	3 hrs.
Light Load	24 hrs.	18 hrs.	9 hrs.	6 hrs.
Overcoat Begin	16 hrs.	8 hrs.	4 hrs.	3 hrs.
Overcoat End	108 hrs.	72 hrs.	52 hrs.	40 hrs.
Cure for Service	84 hrs.	84 hrs.	48 hrs.	36 hrs.

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. In dynamic flow and abrasion conditions (wet or dry), ARC HT-T must be post cured at 95°C (203°F) for 12 hours prior to use.

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]

