



**TECHNICAL
INFORMATION**

PROJECT: _____
 LOCATION: _____
 ARCHITECT: _____
 ENGINEER: _____
 SALES ENGINEER: _____
 DATE: _____



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Joining Instructions for Wet Lay-Up General Information

Joining Procedures for Fiberglass Reinforced Plastic Resin Fabricators Wet Lay-Up Bonding Instructions

Job Preparation: Thoroughly clean and sand the area to be joined.

Joining duct with a catalyzed resin and cloth and/or mat may be effectively performed by placing cloth and/or mat on a sheet of waxed film or cellophane and saturating with a resin after adding catalyst. The wet lay-up may then be applied to the ends to be joined and air pockets worked out by squeezing or rolling on the firm surface.

Duct Fitting Ends and field cuts shall be completely brush coated with catalyzed resin prior to joint wrap so no raw glass fibers are exposed. Resins used shall be the same type use in the duct fitting filament winding Wet field joints (mat and resin) shall be a minimum 4" in width and at least the same thickness as adjoining duct wall. Joint shall be minimum three wraps for duct up to 22"Ø, four wraps for 22"Ø to 36"Ø and six wraps for duct 38"Ø to 60"Ø Joint material shall be thoroughly saturated with the same type of resin as used in duct and fittings. Minimum joint overlap shall be 4" for all sizes.

A hard roller (Paint Roller) can be used to spread the resin and to work out potential air bubbles. Additional layers of mat may be used in the same manner. Care should be taken to catalyze only the amount of resin that can be used during the pot life of the resin. A little experience can quickly determine the proper handling of the resin.

Mixing: The rate of curing of the resin is dependant on the temperature. At low temperatures most resins have a longer working life and require longer curing periods; working time is decreased and curing takes place more rapidly as the temperature increases. Decreasing the amount of catalyst prolongs the working time.

| <u>Amount of Resin</u> | <u>Amount of Hardener</u> | <u>Temperature</u> | <u>Aprox. Pot Life</u> |
|------------------------|---------------------------|--------------------|------------------------|
| 1 qt | 2 / 3 oz | 50-60° F | 20 min. |
| 1 qt | 1 / 2 oz | 60-70° F | 20 min. |
| 1 qt | 1 / 3 oz | 70-80° F | 20 min. |
| 1 qt | 1 / 3 oz | 80-90° F | 20 min. |
| 1 qt | 1 / 6 oz | Over 90° F | 20 min. or less |

The catalyst should be carefully proportioned to the amount of resin to be used, and thoroughly mixed to a uniform blend. Duct joints or repaired parts should be allowed to cure at least 24 hours before being used.

If additional lamination is to be made over a cured area, surface should be broken by sanding before application.

Clean Up: Preferably acetone is used as a cleaner for your hands and tools. Soap and hot water may be used, though not as effectively as acetone. Thorough clean up must be made before the resin cures. Care should be exercised to keep catalyst and resin from contact with skin. We recommend wearing rubber gloves when working with resins and catalyst.

- 1). Review MSD Sheets
- 2). Keep away from an open flame and use an adequate amount of ventilation
- 3). Review top of page