



PowerSleeve® Installation Instructions

The following instructions should be carefully read and understood prior to beginning the installation. Also read and understand the MSDS sheets for these materials prior to beginning the installation. Proper factory training is required, as these instructions cover only the basic steps of proper installation. Any modification to these instructions should be approved by Air Logistics. If you have technical questions, please call Air Logistics Technical Support at 626-633-0294. Chemical gloves and safety glasses are mandatory, along with any other PPE specific to your application environment.

1. Follow the appropriate cleaning and preparation instructions.
2. All sharp corners, dents, leak repairing patches and wall/diameter offsets greater than 1/8th-inch (1/16th-inch for fluid-tight installations) should be smoothed with a rapid-setting filleting and filling compound. Alternately, other non-structural F.A.C.S.™ products may be used to create smooth contours of the repair surfaces.
3. All surfaces that the **PowerSleeve®** will be applied to should be at a temperature between 60°F and 110°F (16°C - 44°C). If out of this range, adjust with heaters or cooler-blowers. Also, all of the **PowerSleeve®** Kit components should be maintained at a temperature of between 65°F and 90°F (18°C - 32°C) during the actual matrix mixing and wet-out procedure.
4. Prepare a level, flat wet-out work surface that is at least the width and length of the **PowerSleeve®** segments. Cover this work surface with polyethylene sheeting. If the wet-out surface is out-of-doors and exposed to solar heating, and if the surface is dark colored, put down a layer of aluminum foil or white paper/plastic so that the work surface does not become hot in the sun.
5. Mix the primer by pouring all of the contents of the Part B container into the Part A container. Mix thoroughly for at least 2 minutes. Coat all surfaces that the **PowerSleeve®** will be applied to with a thorough application of primer, as furnished with the kit. Most primers should be overwrapped with at least the first layer of the main **PowerSleeve®** material while the primer is still wet.
6. Unroll and lay out one segment of the **PowerSleeve®** substrate (“fabric”) on the wet-out work surface, 45x45 side up, and the yellow striping side down.
7. Pour all of the contents of one of the Part B matrix containers into one of the Part A matrix containers. Mix thoroughly for at least 2 minutes. Mixing should be done slowly to avoid air bubble formation.
8. Pour about half of the mixed matrix onto the **PowerSleeve®** segment laid out on the wet-out work surface, and with the furnished squeegee, distribute the matrix evenly over the entire **PowerSleeve®** segment, using slow spreading strokes. Spreading speed and volume should be adjusted to matrix temperature. The total mix amount in a single module is appropriate to a single **PowerSleeve®** segment. Flip the segment over. Repeat the wet-out spreading on this side using the balance of the mixed matrix.
9. Roll up the resin-wetted **PowerSleeve®** segment and transport to the application site (45x45 side out).
10. Within 10 minutes of wetting-out, unroll the segment onto the surface to which the **PowerSleeve®** is being applied (45x45 side down). Press it into the application surface with the squeegee or your gloved fingers, working any trapped air bubbles to the edge and forcing the **PowerSleeve®** into tight contact with the surface below.
11. Repeat for all **PowerSleeve®** segment layers remaining in the Kit. It is best to set the starting point of each layer at a different location around the vessel. For example, start the first layer at the 12-o’clock position, the second layer at the 3-o’clock position, etc. If several Kits are to be applied to a section of pipe, apply the first layer to the entire length of pipe to be sleeved, then start layer 2, offsetting the edges of the layers by at least 3 inches or half the width of a segment (as in laying courses of brick). For segments 12” and wider, a 6 inch offset is convenient.



12. Once the **PowerSleeve**[®] segments are all installed, starting at one edge, wrap on the Kit-furnished Peel Ply followed by a single layer of Bleeder Cloth. Over those layers begin spiral wrapping Stricture Banding[™], stretching it and pulling tightly around the assembly, proceeding down to the other end, and back to the starting point. Do at least 2 complete layers of Strictureing – more does not hurt.
{NOTE: If the temperature and length of the installation causes the first layer of **PowerSleeve**[®] to begin hardening before installation of subsequent layer can be installed, stop and do the Strictureing procedure and allow the installed layers to compress and cure until they hold their shape dependably and the Peel Ply pulls away cleanly. Be certain to remove all Stricture Banding[™] and bleeder materials before adding additional layers of **PowerSleeve**[®]. Any time installation progress is delayed for more than 24 hours, all cured composite surfaces must be sanded to break the “glaze” of the surface, prior to application of subsequent **PowerSleeve**[®] layers. Under certain circumstances, this periodic Strictureing may have to be done several times. Once the final layer of **PowerSleeve**[®] is installed, apply a final Strictureing for complete curing. Additional Peel Ply and Bleeder may have to be ordered, although its use is not mandatory with subsequent Strictureing.}
13. Allow the **PowerSleeve**[®] to cure until it is dry to the touch and does not indent when pressed with a finger nail.
14. Remove the Stricture Banding[™], the Bleeder and the Peel Ply.
15. Paint the entire **PowerSleeve**[®] installation with PowerCoat[™] paint, furnished in the kit, or approved UV & weather barrier coating. Two coats are recommended.

CAUTION: When cured only a few hours (“dry to the touch”) the standard **PowerSleeve**[®] system is NOT fully cured and has NOT reached its full strength. Under circumstances where full structural strength is required prior to some action (such as re-pressurizing a leaking pipeline) a longer cure is required. Contact Air Logistics Technical Support for details.