PTFE, 25% Glass Filled Slide Plate

**ASSEMBLY:**
- **Standard Assembly:** 2 units of ⅜” PTFE, 25% glass filled, bonded to ⅛” carbon steel. For field tack welding, ¼” lip. Loads to 2,000 PSI, temperature: -320 °F to 500 °F.
- **Full Weld Assembly:** 2 units of ⅜” PTFE, 25% glass filled, bonded to indicated backing material with ½” lip all around for full welding. Loads to 2,000 PSI, temperature: -320 °F to 500 °F.

**PART # -- PTP -- 3/32” PTFE, 25% GLASS FILLED -- 10 GA. SS -- ½” LIP AND SIZE**

**ADVANTAGES:**
- Ease of installation.
- No setting problems.
- Low coefficient of friction.
- No surface treatments, grouting, or expensive mechanical attachment necessary.
- Chemically inert.
- Unaffected by weather conditions.
- Ability to absorb dirt and grit within itself.
- Self-aligning when used in conjunction with elastomeric backing pads.

**APPLICATIONS:**
- **Bridges:** Highway bridges, overpasses, railroad bridges.
- **Architectural in Wood, Concrete or Steel:** Cross beam and girder slip joints, roof slabs and corbels, vibration pads, airport hangar doors, domes.
- **Industrial:** Heat exchangers, dust collectors, heavy machinery, refinery equipment, wind tunnels, penstocks, vessels, pipelines, air preheaters, atomic energy applications, transmission towers, storage tanks, offshore drilling rigs.

**ORDERING:**
1. Please specify the dimensions of the upper plate and dimensions of the lower plate. It is common practice that the upper plate is generally larger than the lower plate.
2. Specify lip dimension (if different than standard ½”).
3. Specify base plate thickness (if different than standard ⅛”).

**INSTALLATION:**
- **Prior to Welding:** Locate the slide plate base in the appropriate position on the existing steel surface. Place a protective covering on the PTFE, 25% glass filled. Where seal welding is not required, follow the diagram shown which indicates ⅛” thick fillet weld, 1” long every 4” around entire perimeter of the base. For welding, use GMAW 0.035 wire or SMAW ⅜” stick.

Where full seal welding is required, use a similar pattern of welding until a full weld is obtained. This method will prevent damage to the PTFE, 25% glass filled (A full weld will help prevent seepage of water between the slide bearing plate and the support structure). **Avoid overheating, which may destroy the bonding of the PTFE, 25% glass filled to the base plate.**

**Installing in Concrete:** Secure the top and bottom elements together with paper adhesive tape. Then attach the bottom element anchor bolts with wire to the form. After the bottom pour is made, repeat on top element. During the first expansive cycle, the tape will break.
PTFE, 25% GLASS FILLED, TEMPERATURE AND FRICTION GRAPHS

It has been determined from basic testing that the “ideal” thickness of PTFE, 25% Glass Filled, should be $\frac{3}{32}$”. If the design engineer follows the given chart (left) for the Effect of Temperature on PTFE, 25% Glass Filled, there will not be a failure.

Diagram B

The Coefficient of Friction of PTFE, 25% Glass Filled, slide plates has been reported to be from 0.01 to 0.2. This depends on the surface preparation, loading, velocity, and the duration of the test. Bonding PTFE, 25% Glass Filled, to metal increases the load capabilities in excess of 2,000 PSI (For design purposes, use 500 PSI). This table shows the coefficient of friction due to the load applied. A maximum coefficient of 0.1 can be used in PTFE, 25% Glass Filled, slide bearing designs without considering sliding speed, temperature, or maintenance.