

PSX™48 Adhesive Kit

Epoxy siloxane adhesive for bonding fiberglass pipe and fittings



Description

The PSX48 epoxy adhesive kit contains an adhesive resin, hardener, mixing spatula, and assembly instructions. The adhesive resin (Part A) is a gray paste with sand. The adhesive hardener (Part B) is a grayish-white paste. The mixed adhesive color is gray. PSX48 is a two-part epoxy siloxane adhesive formulated for permanently bonding Quick-Lock™ or taper-taper joints on fiberglass-reinforced pipe and fittings. PSX48 can be used to connect most epoxy and phenolic piping systems.

Instructions

Prior to handling, read all Toxicity, Precaution and First Aid information below. Before mixing the adhesive, ensure that the bonding surfaces are correctly prepared and are clean and dry. Open the resin and hardener containers. Using the mixing spatula, scrape all of the hardener into the resin container. Mix the resin and the hardener with the spatula for at least 60 seconds. Scrape the sides, bottom and lid of the resin container occasionally to get all of the hardener into the mix. Never attempt to split a kit or heat the hardener. The resin and the hardener have been packaged at the correct ratio for optimum adhesive performance.

Apply a uniform coat of the mixed adhesive to both bonding surfaces and draw the parts firmly together. Detailed joint assembly instructions may be found in Quick-Lock Installation Instructions, and Bell x Spigot Installation Instructions.

Pot Life and Cure Time

For installations with service temperatures below 150°F (65°C) and pressures below 150 psi (1.03 MPa), PSX48 bonds can be put into service with ambient temperature cures as indicated in the table. However, it is highly recommended that an external heat source be used to force cure the adhesive. The adhesive and bonding surfaces should be warmed to 70°F (21°C) prior to mixing and applying the adhesive. Adhesive may be force cured using a Fiber Glass Systems approved heating blanket. The table also indicates the pot life (working time) of the adhesive at various temperatures. The pot life is the time from the initial mixing of the resin and hardener until the adhesive in the container begins to thicken and is no longer usable.

For systems with anticipated service temperatures above 150°F (65°C) or operating pressures over 150 psi (1.03 MPa), or when installing any system at ambient temperatures below 50°F (10°C), the adhesive joint must be cured with an external heat source for maximum performance. A heat cure using a Fiber Glass Systems approved electric heating blanket is recommended. The heat cure may be applied at any time after the bond is made and before the line is tested or put into service. The heat may be applied immediately after making the bond while the adhesive is still liquid or after it has gelled to a solid.

Even after the adhesive has solidified at ambient temperatures, heat curing will enhance the chemical cross-linking of the adhesive, increasing the strength, temperature resistance and corrosion resistance of the adhesive. When used in fire protection service all joints must be force-cured with an external heat source regardless of ambient temperature.

Ambient Temperature		Adhesive Pot Life	Minimum Joint Cure Time*	Minimum Time to Move*
°F	°C	minutes	hours	hours
50	10	102	14	13
60	16	73	10	9
70	21	53	7	6
80	27	38	5	4
90	32	27	4	3
100	38	19	3	2
110	43	14	2	1.5
120	49	10	1.5	1

*Minimum recommended time to cure and move the joint at the indicated temperatures. When heat curing, joints can be moved after required heat cure cycle.

First Aid

In case of contact

- Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
- Skin:** Wash skin with soap and water.
- Clothing:** Remove contaminated clothing and wash before reuse.
- Inhalation:** Remove to fresh air. Give oxygen or artificial respiration if necessary.
- Ingestion:** If catalyst is swallowed and person is conscious, give plenty of water or milk to drink. Do not induce vomiting. Call a physician. If resin is swallowed, give 100 grams (about ¼ lb) activated charcoal slurry in water.

Do not induce vomiting. Call a physician.

Call Chem Tel for chemical emergencies, spills:

Hotline/SDS Fax Access: 800-255-3924
Internationally: +01-813-248-0585

PSX 48 adhesive kits are available in 3 fluid oz. and 6 fluid oz. sizes. The values in this table are based on the quantity of adhesive required by an experienced crew working at a temperature of 80°F (27°C).

Adhesive Kit per Quick-Lock Joint

Adhesive Kit Size	3 oz								6 oz				
	Nominal Pipe Size (in/mm)	1 / 25	1½ / 40	2 / 50	3 / 80	4 / 100	5 / 125	6 / 150	8 / 200	10 / 250	12 / 300	14 / 350	16 / 400
Number of Kits		½	½	¼	⅓	½	½	1	1	1	1½	1½	2

Adhesive Kit per Taper/Taper Joint

Adhesive Kit Size	Nominal Pipe Size		BS2410	BS2412	BS2414 BS3000* BS3200*	BS2416* RTHP16* GTHP16*	BS2420 RTHP20* GTHP20* BS3300*	BS2425 RTHP25* GTHP25*	BS2432 RTHP32 GTHP32	BS2440 RTHP40* GTHP40*	BS2450	Marine Taper 2000M/7000M
	in	mm										
3 oz	2	50	½	½	½	½	½	½	½	½	½	-
	3	80	½	½	½	½	½	½	½	½	1	-
	4	100	½	½	½	½	½	½	½	1	1	-
	6	150	½	½	½	½	1	1	1	2	2	-
	8	200	1	1	1	1	1	2	2	2	2	1
6 oz	10	250	½	1	1	1	1	1	1	2	2	1
	12	300	1	1	1	1	1	2	2	2	3	1
	14	350	1	1	2	2	2	2	2	3	3	2
	16	400	1	1	2	2	2	2	2	3	4	2
	18	450	2	2	2	2	2	2	3	4	5	3
	20	500	2	2	2	3	3	3	4	5	6	3
	24	600	2	3	3	3	3	4	5	7	-	4
	28	700	3	3	4	4	5	6	-	-	-	5
	30	750	3	4	5	5	6	7	-	-	-	5
	32	800	3	4	4	6	6	8	-	-	-	6
	36	900	4	6	6	7	7	-	-	-	-	6
	40	1000	5	7	7	7	-	-	-	-	-	7
42	1050	-	-	-	8	-	-	-	-	-	-	

BS=Bondstrand™; RTHP=Red Thread™ HP; GTHP=Green Thread™ HP
 *Not all sizes available

Storage

Do not store kits in areas above 100°F (38°C) or below 32°F (0°C), or in the direct sunlight in warm weather. In cold weather warm the resin to at least 70°F (21°C) but not above 100°F (38°C) to permit good mixing and easier application. Do not use adhesive past its expiration date.

Toxicity and Precautions

Hardener: The hardener is irritating to skin, eyes and respiratory tract. It is toxic orally and may cause sensitization. Avoid contact with eyes, skin or clothing. Avoid breathing vapors. Wear rubber gloves, protective apron and NIOSH approved respirator. Wash thoroughly after handling.

Resin: The resin may be mildly irritating to skin, eyes and respiratory tract. Avoid contact with eyes, skin or clothing. Avoid breathing vapors. Wear rubber gloves and eye protection. Wash thoroughly after handling.

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