

PSX™34 Adhesive Kit

Epoxy siloxane adhesive for bonding fiberglass pipe and fittings



Description

PSX 34 adhesive can be used to bond NOV epoxy systems. PSX 34 is a two-part epoxy siloxane adhesive formulated to permanently bond fiberglass reinforced pipe and fitting joints. Compatible NOV joints are the Quick-Lock™, Centricast™ straight socket, matched taper-taper, and two-piece clamshell containment fittings.

The PSX 34 epoxy adhesive kit contains a base resin, hardener, mixing spatula, brush and user instructions. The resin color is a dark red or black paste mixed with a white hardener yielding a red or black adhesive mixture.

Listings and Approvals

PSX 34 adhesive is Listed by Underwriters Laboratories (UL) U.S.A. under file number MH9162 for use in Nonmetallic Underground Piping for Flammable Liquids and Underwriters Laboratories of Canada (ULC) under file number CMH715.

PSX 34 adhesive is Listed by the National Sanitation Foundation under NSF Standard 61 – Drinking Water System Components – Health Effects for use in Potable Water Service and Commercial Hot Water Applications.

Instructions

Prior to handling adhesive components, review the “Toxicity and Precaution” and “First Aid” sections in this document. Properly prepare the bonding surfaces, keeping them clean and dry prior to mixing adhesive. Open both the resin and hardener containers. The resin and hardener are packaged in the appropriate amounts for optimum adhesive performance, so be sure to transfer all the hardener into the resin container using the included spatula. Scrape the sides, bottom and lid of both containers to ensure all the resin and hardeners are blended completely. Never split a kit. Apply a uniform coat of the mixture to both bonding surfaces, referring to the proper installation manual for product-specific instructions.

Pot Life

The pot life is the elapsed time from the initial mixing of the resin and hardener until the adhesive in the container becomes thick and unusable. The PSX 34 adhesive pot life varies with changing ambient temperatures as shown in the following table.

Cure Time

PSX 34 adhesive joints may be ambient temperature or heat cured using approved NOV heating blankets. It is important to note that heat curing yields optimum joint strength and chemical resistance. Prior to hydro-testing or putting a piping system into operational service, the adhesive bonded joints must be completely cured. During cool weather, the adhesive and bonding surface material should be warmed

to 70°F(21°C) before applying adhesive to achieve efficient joint makeup. When ambient temperatures are below 60°F(16°C) all joints must be cured using heat blankets. When electricity is not available, bonds can be cured with Chem-Cure Paks.

Piping system designed to operate below 180°F (82°C) and pressures up to 150 psi (1.03 MPa) may be ambient temperature cured. The minimum ambient temperature cure time varies with changing ambient temperatures as shown in the following table. Systems designed to operate above 180°F(82°C) or pressures over 150 psi must be heat cured. A heat assisted cure may be performed at any time after the bond is assembled but before the piping system is tested or put into operational service. Heat may be applied immediately after making the bond while the adhesive is still liquid or after it has gelled to a solid. If the ambient temperature is expected to fall rapidly after joint assembly or below 60°F(16°C) heat assisted curing should be performed immediately.

The minimum heat cure time is 30 minutes for 1 through 6-inch pipe and 45 minutes for 8 through 16-inch pipe sizes. For larger sizes or higher pressure ratings, longer heat assisted cure times are required. The performance of an ambient temperature cured joint can be improved by a follow up heat assisted cure.

When used in fire protection service systems, all joints must be heat cured with an NOV approved heating blanket or Chem-Cure Pak.

Ambient Temperature ⁽¹⁾		Adhesive Pot Life	Minimum Joint Cure Time ⁽²⁾
°F	°C	minutes	hours
60	16	40	6
70	21	30	5
80	27	20	4
100	38	8	3
110	43	5	1

⁽¹⁾ At temperatures below 60°F (16°C), an external heat source must be used to cure the adhesive. The adhesive and the bonding surfaces should be warmed to 70°F (21°C) before mixing and applying the adhesive. Adhesive may be cured using an approved electric heating blanket. When using adhesive at ambient temperatures above 100°F (38°C), make provisions to keep adhesive cool to extend pot life.

⁽²⁾ Times indicate when cure is sufficient to permit moving the bonded joint. The minimum joint cure time must elapse prior to hydro testing.

Storage

Adhesive kits should be stored in a dry environment between 32°F(0°C) and 100°F(38°C). Do not store kits in direct sunlight. Before use always check the adhesive kit expiration date, expired kits must not be used. When kits are removed for use it is recommended the resin and hardener be a minimum of 70°F(21°C). Warming to 70°F(21°C) improves the mixability and application of adhesive to a joint. Caution, the warmer the adhesive the shorter the pot life.

Adhesive Kit Sizes and Bonds Per Kit

PSX-34 adhesive kits are available in 3 oz., 5 oz., 6 oz. and 8 oz. sizes. The values in this table are based on the quantity of adhesive required by an experienced crew working in an 80°F(27°C) ambient temperature environment.

Quick-Lock Joints Bonds per Kit

Kit Size	Nominal Pipe Size - in/mm											
fl oz	1" (25 mm)	1.5" (40 mm)	2" (50 mm)	3" (80 mm)	4" (100 mm)	5" (125 mm)	6" (150 mm)	8" (200 mm)	10" (250 mm)	12" (300 mm)	14" (350 mm)	16" (400 mm)
3	4	4	3	3	1	1	1	½	-	-	-	-
5	-	-	6	5	2	1	1	1	½	½	-	-
6	-	-	8	7	4	2	2	2	1	½	½	½
8	-	-	-	-	5	2	2	2	1	½	½	½

Taper-Taper Joints Bonds per Kit

Kit Size	Nominal Pipe Size - in/mm											
fl oz	1" (25 mm)	1.5" (40 mm)	2" (50 mm)	3" (80 mm)	4" (100 mm)	5" (125 mm)	6" (150 mm)	8" (200 mm)	10" (250 mm)	12" (300 mm)	14" (350 mm)	16" (400 mm)
3	-	-	5	4	3	-	1	1	½	-	-	-
5	-	-	10	7	5	-	2	1	1	½	-	-
6	28	18	13	9	7	-	3	2	1	1	½	½
8	-	-	-	-	8	-	3	2	1	1	½	½

Centricast RB-2530 Joint Bonds per Kit

Kit Size	Nominal Pipe Size - in/mm										
fl oz	1" (25 mm)	1.5" (40 mm)	2" (50 mm)	3" (80 mm)	4" (100 mm)	6" (150 mm)	8" (200 mm)	10" (250 mm)	12" (300 mm)	14" (350 mm)	
6	11	9	7	4	2 ½	1 ½	1	½	½	⅓	

Toxicity and Precautions

Hardener: The hardener is orally toxic, irritating to skin, eyes and respiratory systems. Prolonged contact may cause sensitization. Wear eye protection, rubber gloves and proper clothing to avoid contact with hardener. Adequate ventilation should be used to minimize breathing of vapors. Thorough washing of hands and clothing is recommended after handling.

Resin: The resin may be irritating to skin, eyes and respiratory systems. Wear eye protection, rubber gloves and proper clothing to avoid contact with hardener. Adequate ventilation should be used to minimize breathing of vapors. Thorough washing of hands and clothing is recommended after handling.

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

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