600 SERIES COATING SYSTEMS

600 / 634P and 610/ CP50P COATINGS
COLD APPLIED PIPE LINE COATING FOR HAND APPLICATION

DESCRIPTION:

POLYGUARD 600 SERIES COATING SYSTEMS are laminated protective coatings. The primary waterproofing material is a rubberized bitumen coating, bonded to a white polyethylene film. For products that conform easily, ***POLYGUARD COATINGS*** have exceptional adhesion and mechanical strength. The coatings are supplied in rolls for easy application on all sizes of pipe.

POLYGUARD 600 LIQUID ADHESIVE is a fast drying, rubber based materials in a solvent solution. It is available in solvent systems that will conform to most local VOC requirements.

USES:

POLYGUARD 600 SERIES COATING SYSTEMS are for hand application for coating and wrapping of station piping, field joints, repairs on mill coated pipe, gas distribution, and for reconditioning of older lines.

No other use of these materials is to be made without prior approval of **POLYGUARD PRODUCTS, INC.** as to service and method of application.

ADVANTAGES:

Following are the advantages of ***POLYGUARD 600 SERIES COATING SYSTEMS***:

- Excellent cathodic disbondment resistance.
- Uniform factory controlled thickness.
- Damaged coating areas can be repaired quickly and easily.
- Excellent resistance to water or vapor transmission.
- Resistant to deterioration from acids and alkalies encountered in normal soil.
- Excellent ability at the lap to resist infiltration of moisture.
- Elastomeric properties to accommodate normal expansion and contraction of the substrate.
- Easy to apply.
- Excellent peel adhesion.

PROPERTY	TEST METHODS	600 / 634P COATINGS	610 / CP50P COATING
Nominal Coating Thickness		35 mils (.89 mm)	50 mils (1.27mm)
Nominal Film Thickness		7 mils (.18mm)	10 mils (.25mm)
Tensile Strength	ASTM D882 *METHOD B*	16.8 lbs./in width (3.0 kg./cm/ width)	22.5 lb./in/width (4.0 kg./cm.width)
Elongation at Break	ASTM D882 *METHOD B*	400%	400%
Dielectric Strength	ASTM D149	>12 KV	>12 KV
Low Temperature at 0°F. (-17.8°C)	ASTM D146	No Cracking	No Cracking

This Information is based on our best knowledge, but POLYGUARD cannot guarantee the results to be obtained

As of 8/1/2001 Polyguard Products' quality system has been certified to the following quality system requirements:
- *ANSI/ASQC*
- *DUTCH COUNCIL FOR CERTIFICATION*
- *STANDARDS COUNCIL OF CANADA*

PROPERTY	TEST METHODS	600 / 634P COATINGS	610 / CP50P COATING
Adhesion to Primed Steel	ASTM D1000	17.0 lb./in. width (3.0 kg./cm. width)	17.0 lb./in.width (3.0 kg./cm. width)
Adhesion to Overlap	ASTM D1000	14.0 lb./in. width (2.4 kg./cm. width)	14.0 lb./in. width (2.4 kg./cm. width)
Cathodic Disbondment	ASTM G8	PASSES: < 5.0 mm avg.	PASSES: < 5.0 mm avg.
Water Vapor Transmission Rate	ASTM E96	.032 grains/hr/ft^2 (.036 g/h-m^2)	.032 grains/hr/ft^2 (.036 g/h-m^2)
Water Absorption	ASTM D570	<.1%	<.1%
Temperature Ranges:	• At Application 25°F. to 110°F (-4° to 43° C) • In Service -25°F. to 130°F (-32° to 54° C)		

GUIDE SPECIFICATION:

Handling Materials: ***POLYGUARD COATINGS*** **and** ***LIQUID ADHESIVES*** should be hauled and stored in such a manner as to prevent injury to the packages. All packages and rolls of wrapping materials should be stored in a dry place and kept from contact with earth and protected from weather at all times. It is recommended that the tape and ***LIQUID ADHESIVE*** be transported in warmed vehicles and stored in heated buildings during cold weather. Although the coating can be utilized at lower temperatures, to maximize the quality application characteristics of the coating system, it is recommended that the coating and ***LIQUID ADHESIVES*** be maintained at a temperature of 45°F *(7°C)* or higher at times of application.

Surface Preparation: The pipe shall be cleaned of all paint, oil and grease, mill scale, loose rust, welding residue, knurls, frost, dust, moisture, weeds, and other foreign matter. Where feasible and practical, the surface can be blast cleaned to a NACE No. 3 finish. Where mill coated pipe is involved, the ***LIQUID ADHESIVE*** and coating should be applied to the girth weld, starting on top of the mill coating, at least 1" back from the edges of the mill coating.

Liquid Adhesive Application: ***POLYGUARD LIQUID ADHESIVE*** should be applied at an average rate of 400 sq. ft. per gallon *(10m^2/liter)*. Stir ***LIQUID ADHESIVE*** before using. Apply with brush or roller to clean and dry pipe surface. ***DO NOT THIN POLYGUARD LIQUID ADHESIVE***. In the event of cold weather, store inside prior to use.

Wrapping: ***POLYGUARD 600 SERIES COATING SYSTEMS*** can be applied by spiral wrapping. The release sheet is to be removed immediately prior to the application. The bitumen surface of the coating shall be applied to the dry ***LIQUID ADHESIVE***. In spiral wrapping, a minimum of 1" *(25.44 mm)* lap shall be maintained.

In areas designated by the owner as critical, the overlap may be increased to 50%. Critical areas would be designated as a function of pipe diameter, weight of the pipe, type of backfill soil and the severity of soil stress conditions in a particular area.

Where larger diameter pipe is involved or where soil stress conditions exist, it is advisable to over wrap the applied ***600 SERIES COATING SYSTEMS*** with ***POLYGUARD 440 OUTERWRAP*** or other suitable outerwrap material.

POLYGUARD 600 SERIES COATINGS should be applied with enough tension to eliminate any air pockets and also to conform to the weld bead area and beveled cut back. **DO NOT STRETCH EXCESSIVELY.**

Coating Repairs: The pipe and mill coating surface shall be clean and dry. Remove all loose or damaged coating around the holiday with a draw knife or other sharp hand tool. Feather edge the mill coating. Prime the pipe and adjacent coating area 2" wider than the repair coating. Either cigarette wrap or spiral wrap the repair coating to cover the entire holiday area, plus at least 2" of mill coating on either side of the damage area. Small pinholes may be patched by a single cigarette wrap over the coated pipe surface. The end laps should be at least 4". A postage stamp patch may be substituted for the complete cigarette wrap around the pipe when dry sandy or loam soil is used as backfill material. Patches are not recommended when backfill consists of large wet or dry dirt clods that could dislodge the patch from the pipe surface as the backfill settles.

Lowering-in: The pipe should be inspected immediately before lowering in. ***POLYGUARD 600 SERIES COATING SYSTEMS*** shall be holiday detected with an adjustable electronic detector at a maximum voltage in accord with the following formula:

V = • ₹ x 1250. where
V = Voltage
T = Coating thickness, in mils

Excess voltage will break down the dielectric strength of the coating. Care should be taken to use the minimum voltage setting to locate defects in the ***600 SERIES COATING SYSTEMS***. Follow instructions of holiday equipment manufacturer.

Backfilling: Care shall be taken in backfilling to avoid sharp rocks or other material in the backfill that would damage and penetrate the coating. In areas of rough backfill, suitable rock shielding shall be provided to protect the coating from backfill damage.

PRECAUTIONS:

The ***LIQUID ADHESIVE*** is an industrial coating and would be harmful or fatal if swallowed. It is marked as red-label from the standpoint of flash point. Prohibit flames, sparks, welding and smoking during application.

Solvents could be ***irritating*** to the eyes. In case of contact with eyes, flush with water and contact physician.

Avoid prolonged contact with skin and breathing of vapor or spray mist from ***LIQUID ADHESIVE.*** In confined areas, use adequate forced ventilation, fresh air masks, explosion proof equipment and clean clothing.

Keep out of reach of children.

This material is offered for sale by **POLYGUARD PRODUCTS, INC.** only for the expressed purposes as described in this literature. Any use of the products described in this literature for purposes other than taught therein by **POLYGUARD PRODUCTS, INC.** shall be the responsibility of the purchaser and **POLYGUARD PRODUCTS, INC.** does not warrant nor will be responsible for any misuse of these products. **POLYGUARD PRODUCTS, INC.** will replace F.O.B. Ennis, Texas, material not meeting our manufacturer's specifications one year from date of sale.

POLYGUARD products as described herein are for industrial use only. The application procedures should be performed by workmen who are skilled in the application of materials described herein in accordance with manufacturer specifications.

MATERIAL SAFETY DATA:

All Material Safety Data Sheets and precautionary labels should be read and understood by all user supervisory personnel and employees before using. Consult **POLYGUARD PRODUCTS, INC.** Material Safety Data Sheets and OSHA regulations for additional safety and health information for the products described herein. Purchaser is responsible for complying with all applicable federal, state or local laws and regulations covering use of the product including waste disposal.

This is not a Material Safety Data Sheet and is not to be used as such. **POLYGUARD** has prepared separate Material Safety Data Sheets on each product.

MAINTENANCE:

Not required.

11/14/01