

RD-6 COATING APPLICATION SPECIFICATION

GENERAL

U.S. PATENT NO. 4,983,449

U.S. PATENT NO. 5,120,381

FOREIGN PATENTS

COATING SYSTEM FOR GIRTH WELDS, PLANT PIPING, NEW PIPE, AND FOR THE RECONDITIONING OF LINE PIPE

DESCRIPTION:

POLYGUARD RD-6 COATING SYSTEM consists of a fabric strengthened protective pipeline coating that is manual or machine applied over its companion **LIQUID ADHESIVE**. The primary waterproofing material is a rubberized bitumen coating. Bonded to the outside surface of this coating is a very strong, tightly woven polyolefin geotextile fabric. The fabric provides exceptional mechanical strength to the coating system permitting tension application, even during hot weather. The geotextile fabric will help resist deformation of the coating from soil forces and from sagging on the bottom of the pipe. Also, the fabric will not by itself retard the flow of protective electrical current that may contribute to a possible shielding condition.

The coating is supplied in roll form for easy application by various commercial, manually or power operated machines. **RD-6** is supplied with a separator sheet between layers. These machines have two spindles, one for the coating unwind and one to take up the separator sheet as the coating is applied.

RD-6 can also be applied manually, without machine. However, it is important to recognize that much more tension can and should be used during its application than that which is normal for other types of products.

POLYGUARD 600 LIQUID ADHESIVE is fast drying, rubber based material in a solvent solution. They are available in solvent systems that will conform to most local air pollution requirements.

APPLICATION SPECIFICATIONS:

HANDLING MATERIALS: POLYGUARD COATING and **LIQUID ADHESIVE** should be hauled and stored in such a manner as to prevent injury to the packages. No packages should be dropped or thrown from trucks. Packages shall not be handled with hooks. All packages and rolls or 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 coating 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 time of application.

SURFACE PREPARATION: As a basic requirement, the pipe shall be cleaned of all paints, 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 commercial finish, such as described in NACE No. 3. 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.

Neither our liquid adhesive nor our coating should be applied to pipe surfaces where there is the presence of visual moisture. **POLYGUARD RD-6 COATING SYSTEMS** will not properly adhere to pipes with moisture. Condensation happens on a metal surface when the temperature of the pipe is at or below the dew point temperature. Relative humidity is the measure of how much moisture is in the air. Dew point is the combination of temperature and relative humidity where moisture condensates on a surface. The ASTM E 337, "Standard Method for Measuring Humidity with Psychrometer: is the recommended method for measuring dew point temperature. When condensation is a problem, the pipe surfaces should be heated to at least 5°F above the dew point temperature before the coating is applied. Condensation is usually not a problem unless the relative humidity is 85% or more.

LIQUID ADHESIVE APPLICATION: POLYGUARD 600 LIQUID ADHESIVE should be applied at an average rate of 400 sq.ft. per gallon (10.0m²/liter). Stir liquid adhesive before using. Apply liquid adhesive with brush or roller to clean and dry substrate. Do not thin **POLYGUARD LIQUID ADHESIVE**.



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

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As of 9/1/2003 Polyguard Products' quality system has been certified to American, Dutch, and German quality systems requirements:
• AMERICAN NATIONAL STANDARDS INSTITUTE
• DUTCH COUNCIL FOR CERTIFICATION
• DEUTSCHER AKKREDITIERUNGS RAT

POLYGUARD RD-6 can be spirally wrapped by hand or power operated machine. Recommended machine to include two spindles. The coating is spirally wrapped with the bitumen side next to the dry or tacky/dry liquid adhesive. As the coating is unwound from its spindle, the separator sheet is rewound simultaneously onto the other spindle and discarded after roll is completely applied. Enough brake tension should be used to obtain good overlap confirmation and a smooth, tight, air pocket free condition to the pipe surface. The coating overlap should be no less than 1" (25.4mm), unless otherwise specified. Where DSAW pipe is being coated, prior to coating, **RD-6** material must be used for stripping purposes over the mill weld. The material is applied over the **LIQUID ADHESIVE** surface before the **RD-6** coating is applied. Centering the middle of the product over the weld, the roll is unwound normally, removing the separator sheet as it is unwound. If the coated pipe in hot weather remains in either an open ditch or on skids for an extended period, it is suggested to overwrap the coating with kraft paper or other suitable temporary material.

In most cases, but especially if soil conditions dictate, it is advisable to overwrap the **RD-6** with a permanent type outerwrap. **POLYGUARD** manufactures several types of outerwrap, bonded or unbonded, for use over **RD-6**, if required. Refer to data sheet for **611-B** and **440 OUTERWRAPS** for further information.

LOWERING IN: It is normal that the pipe be inspected before lowering-in with a holiday detector. The coating system can then be holiday detected with an adjustable electronic detector. The thickness of the RD-6 compound is 40 mils with a 10 mil mesh backing that will allow the current from the holiday detector to easily penetrate if the compound is damaged. For this reason Polyguard recommends setting the holiday detector at maximum of 4000 volts. Significant testing has proven that when the compound is not damaged, the voltage could be set at higher voltages, but doing so can penetrate thin spots that may be perfectly good coating otherwise.

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 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 within 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 law 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.

PATENTS:

RD-6 is protected by U.S. patent #4,983,449 and U.S. patent #5,120,381 as well as by foreign patents.

TECHNICAL SERVICES:

Technical assistance and information is available from:

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