

# PROTO FITTING COVERS

25/50 RATED  
PER ASTM E-84 — LoSMOKE® PVC

## SUBMITTAL SHEET

Effective: 05/01/07

Submitted Date: \_\_\_\_\_

PVC FITTING COVERS, PRE-MOLDED, INSULATED  
WHITE GLOSS FINISH — INDOOR OUTDOOR GRADE

### DESCRIPTION

The Proto Fitting Cover System consists of one piece and two piece pre-molded high impact LoSMOKE® PVC fitting covers with fiberglass inserts and accessories, which include elbows, tee/valves, end caps, mechanical line couplings, specialty fittings, white and indoor color jacketing, Protop® Tank End Panels, tack fasteners, tapes and specialty items.

### APPLICATIONS

The Proto Fitting Cover System is used to insulate mechanical piping systems at fitting locations and provide a PVC jacketing for straight run piping. Both give a quality appearance and have excellent durability.

### FEATURES AND BENEFITS

**25/50 Rated.** All Proto PVC Fittings are made of LoSMOKE® grade PVC. Roll Jacketing is available in either 25/50 rated or regular PVC Grade (not 25/50 rated). The 25/50 products meet fire and smoke safety requirements of federal, state and local building codes.

**Excellent Appearance.** Bright high-gloss white coloring adds a distinct quality appearance to the system. The standard line of Proto Fitting Covers are made in LoSMOKE® PVC designed for indoor and outdoor use. Virtually all sizes pass 25/50 when made of LoSMOKE® PVC. Colored PVC is manufactured from a LoSMOKE® formula that is suitable for indoor use only.

**Easy To Clean.** Due to the smooth, high gloss finish on Proto PVC Fittings, the product cleans easily with soap and water. This makes the system ideal for food and drug facilities.

**Low Cost Installation.** Significant cost savings vs. conventional cement, molded sections, and mitered sections.

**Fast and Easy.** At fitting locations, wrap the fiberglass insert around the pipe fitting, apply the Proto PVC Fitting over the insert and tack or tape in place. Do not use tacks where a vapor retarder is applied.

**Wide Temperature Range.** May be used for mechanical piping systems operating from -20°F to +140°F surface temperature of insulation. Variety: LoSMOKE®, Indoor/Outdoor, Exod®, Exotuff®. Proto products are also available in LoSMOKE® Indoor colors. Exod® is CPVC, GOOD TO 225° F.

**Long Lasting.** Can be used more than once on retrofit projects, general maintenance.

**Excellent Thermal Value.** K value of .26 at 75°F (.037 W/m °C at 24°C) of fiberglass insert, mean temperature assures better thermal efficiency than conventional cement fittings.

**Resistance To Fungi and Bacteria.** (ASTM G 21, ASTM G 22) Does not promote growth of fungi or bacteria.

**U.V. Resistant.** Can be used on indoor or outdoor applications, for both (White) LoSMOKE® PVC and Regular PVC. Extra thick fitting covers should be used outdoors. (All Std. Proto Fitting covers are made of LoSMOKE® PVC.)

### TECHNICAL PHYSICAL PROPERTIES OF PVC LoSMOKE® MATERIALS

Specific Gravity (ASTM D-792) .....1.41  
Tensile Modulus, PSI (ASTM D-638) .....361,000 (25,380 kg/cm<sup>2</sup>)  
Tensile Strength, PSI (ASTM D-638) .....6,011

# PROTO REGULAR PVC LoSMOKE® PVC JACKETING

## PROTO CORP.

10500 47th Street North  
Clearwater, FL 33762-5017  
Tel: (727) 573-4665  
Fax: (727) 572-6823  
Toll Free (800) 875-7768

SUBMITTAL SHEET DOES NOT SUPERCEDE WRITTEN  
SPECIFICATIONS OR OWNER AGREEMENT.

Flexural Strength, PSI (ASTM D-790) .....9,396  
Izod Impact (1/4") ft. lb./in (ASTM D-256) .....3.7  
Heat Deflection Temp. (ASTM D-648) .....157°F (70°C)  
at 264 PSI (8.95 kg/cm<sup>2</sup>), °F  
VICAT Softening Temp. (ASTM D-1525) .....198°F (92°C)

Water Vapor Transmission

ASTM E 96-95

70°F & 50% Relative Humidity

.015" thick = .058

.020" thick = .047

.030" thick = .027

Surface Burning Characteristics of All Fitting Covers and Jacketing  
LoSMOKE® PVC .....passes 25/50 ASTM-E 84  
Up to .035" Thk.

Puncture Resistance (ASTM D 781) .. .006" thick = 178 Beach Units  
.015" thick = 221 Beach Units

### FEDERAL SPECIFICATIONS COMPLIANCE— POLY VINYL CHLORIDE — ASTM 1784-92

LP-1035A Type II Grade GU and Type III

LP-535E Type II Grade GU and Type III

United States Department of Agriculture Authorized

Agriculture Canada Authorized

New York City MEA 243-84-M, Chicago, Los Angeles ASTM

C-585-76 (sizes)

Canada CAN/CGSB - 51.53-95

### TECHNICAL PROPERTIES OF

### FIBERGLASS INSERT MATERIAL

Thermal Conductivity (ASTM C 177)

Mean Temperature — °F

"k" — BTU in/hr. Ft.2 °F

HH-I-558 Form B 75° 1(24°C) .26 (.037 W/m. °C)

Type 1 Class B 150° 1(66°C) .33 (.048 W/m. °C)

250° (121°C) .44 (.063 W/m. °C)

### APPLICATION AND SPECIFICATION GUIDELINES

#### A. STORAGE

Protect cartons from water damage or other abuse. Proto Fitting Cover cartons are not designed for outside storage.

#### B. PREPARATION

Proto Fitting Covers should be applied on clean, dry surfaces.

#### C. APPLICATION

1. **General:** The matching fiberglass insert shall be wrapped completely around the metal fitting leaving no voids. Loose wrappings of twine is helpful in shaping difficult surfaces. The Proto Fitting Cover shall then be applied over the fitting and insert, and the throat secured by either tack fastening or taping.

2. **Cold Pipe:** Fitting systems below ambient temperature must have a continuous vapor retarder or vapor retardant mastic as specified by the engineer. When using Proto PVC Tape, a 2" (51mm) minimum downward overlap is recommended for optimum performance. Care should be taken not to stretch the last 2" (51mm) of Proto PVC Tape, to avoid stretching or creeping.

3. **Hot Pipe:** Insulate as per General Instructions given above. Due to PVC softening point at approximately 159°F (70.6°C), care should be taken to ensure sufficient insulation thicknesses are applied.