

**RADCO TEST REPORT**

Test Report No. RAD-4673

Project No. C1486A

Lab No. TL-3223

Thermal Resistance Test Per ASTM C518 on  
Poly Vinyl Chloride Foam Insulation Product

Prepared for

**PLUMBEREX SPECIALTY PRODUCTS, INC.**

PO BOX 1684

Palm Springs, CA 92263

by

**RADCO**

Resources, Applications, Designs and Controls, Inc.

Listing and Testing Division

3220 E. 59th Street

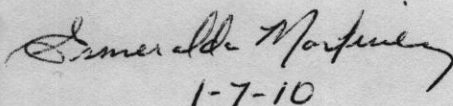
Long Beach, CA 90805

Tel: 562-272-7231

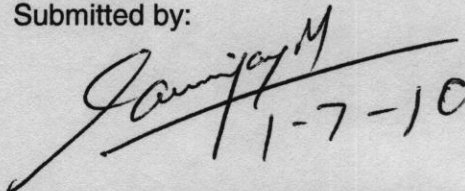
Fax: 562-529-7513

www.radcoinc.com

Prepared by:

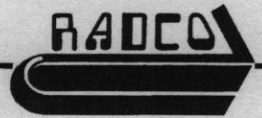
  
1-7-10Esmeralda I. Martinez, Senior Consultant  
Testing Laboratories & Code Interface Services

Submitted by:

  
1-7-10Sanjay "Jay" Mishra, Vice President  
Testing Laboratories & Code Interface Services

Issued: January 7, 2010

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## 1.0 INTRODUCTION

At the request of Plumberex Specialty Products Inc., RADCO conducted a thermal resistance test on samples of Poly Vinyl Chloride foam insulation product per ASTM C518-91 *Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus*.

## 2.0 MATERIAL

Three (3) 12" x 12" x 1/8" (305 mm x 305 mm x 3.18 mm) samples of Poly Vinyl Chloride foam material were shipped from Plumberex Speciality Products facility located in Palm Springs, CA and were received at RADCO's Long Beach, CA test facility on December 30, 2009.

## 3.0 TEST SETUP, PROCEDURE, AND RESULTS

### 3.1 ASTM STANDARD C518-91, TEST METHOD FOR STEADY-STATE THERMAL TRANSMISSION PROPERTIES BY MEANS OF THE HEAT FLOW METER APPARATUS

#### TEST EQUIPMENT

1. Steel rule graduated to 1 mm
2. "Sartorius" GP3202 Model Electronic Digital Scale
3. Holometrix Micromet (Metrisa Company) Lambda 2000 Series heat flow meter

#### PROCEDURE

Testing was conducted in accordance with ASTM Standard C518. Two (2) 12" x 12" (305 mm x 305 mm) specimens were tested at a mean temperature of  $75 \pm 2^\circ\text{F}$  ( $23.9 \pm 1.1^\circ\text{C}$ ). The specimen's thickness was determined in the heat flow meter apparatus. The recorded data and the results are shown in the following table. The samples were conditioned to a minimum of 40 hours at a temperature of  $73.4 \pm 4^\circ\text{F}$  ( $23 \pm 2^\circ\text{C}$ ) and a relative humidity of  $50 \pm 5\%$  prior to testing.

## RESULTS

Sample No.	1	2
Date of test	01/06/10	01/06/10
Hot plate temperature set point °F:	86.33	86.67
Cold plate temperature set point °F:	63.94	64.14
Mean temperature during test °F:	75.13	75.41
Temperature gradient during test °F:	22.39	22.53
Specimen thickness as tested (in):	0.1228	0.1254
Duration of measurement portion of test (hrs:min:sec):	00:41:18	00:41:51
Final specimen mass (wt.) after test (g):	101.14	101.53
Specimen percent mass (wt.) change:	-0.019	-0.029
Thermal conductivity "k": BTU-in/(Hr.ft <sup>2</sup> .°F)	0.357809	0.359083
Thermal resistance "R" per specimen thickness : (Hr.ft <sup>2</sup> .°F)/BTU	0.343087	0.349307
Thermal resistance "R" per inch : (Hr.ft <sup>2</sup> .°F)/BTU	2.79479	2.78487
Density of Specimen (PCF)	21.79	21.43

Note 1: Last heat flow meter calibration date = 01/06/10

Note 2: Type of calibration material used = fiberglass

\*\*\*\*\*END OF REPORT\*\*\*\*\*