Product Information Sheet

FyreWrap® DPS Insulation Dryer & Plenum Systems

FyreWrap® DPS Insulation – Dryer & Plenum Systems

Introduction

Unifrax's FyreWrap® DPS Insulation is a high-temperature insulation blanket specifically designed, UL tested and certified to provide a single layer, one-hour rated flexible enclosure around dryer and residential kitchen exhaust ductwork. The product also provides code compliant fire protection for combustible items, such as plastic pipes by preventing flame propagation and smoke development in the plenum area.

Dryer Exhaust Applications

FyreWrap DPS is a new and innovative product that provides a safe and cost-effective means to achieve a one-hour fire resistance rated zero clearance enclosure for routing dryer ductwork, from start to finish, through rated wood truss/joist construction as prescribed by the International Building and Mechanical Codes.

Plenum Applications

New construction, building renovations or modifications to the electrical and mechanical systems may result in the installation of plastic pipe or plastic-coated cables that cannot meet the minimum combustibility requirements defined in the Mechanical Code. FyreWrap DPS provides protection to these items by acting as a tested non-combustible enclosure.

FyreWrap DPS Insulation offers the following product features:

- Lightweight, flexible product form
- Scrim encapsulated
- Easy to cut, fabricate, wrap around ducts, pipes or cables
- Thin, single-layer design
- High-temperature, low biopersistance fiber

Product Components

Core Material: FyreWrap DPS Insulation incorporates Insulfrax® Thermal Insulation as its core material. Insulfrax is a high-temperature insulation made from a calcia, magnesia, silica chemistry designed to enhance biosolubility. It provides excellent insulation in a noncombustible blanket product form.

Encapsulating Material: The core insulation blanket is completely encapsulated in an aluminum foil, fiberglass reinforced scrim covering. This scrim provides additional handling strength as well as protection from moisture absorption and tearing.

Typical System Properties

ISO 6944	UL Assembly No. V-32	
UL 1479 (ASTM E814), CAN/ULC S115	UL Assembly Nos. F-C-7057, F-C-7058	
Intertek Laboratories (OPL) Listed	Applied Fire Protection, File 16341-3	
UL 1887 – modified results	Passes; Intertek Design Nos. UNI/BI 20-01, 20-02	
Plastic Pipe and Cable Sheathing	PVC, CPVC, PB, PE, PP, PVDF and ABS	
Plastic Pipe Size (minimum)	1" or larger individual pipes or pipe bundles	
Plastic Coated Cable Groupings	3 or more multi-stranded telecommunication wires	
ASTM E136 Noncombustibility Test	Passes	
ASTM E84, UL 723, ULC S102.2	UL File No. R14514	
	Unfaced Blanket	Encapsulated
Flame Spread Rating:	Zero	<25
Smoke Developed Rating:	Zero	<50

Data are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes.

Refer to the product Safety Data Sheet (SDS) No. M0456 for recommended work practices and other product safety information.

Typical Product Parameters

Thickness	½"
Density	8pcf
Covering	Scrim Encapsulated
Product Availability	16"w x 25LF
	48"w x 25LF

Installation

FyreWrap DPS Insulation consists of a single-layer system applied directly on to the surface of the duct or combustible item.

Dryer Applications

Install the insulation around the duct to provide a 1" longitudinal compression joint or overlap. Adjacent pieces of insulation should be installed with a 1" perimeter compression joint or material overlap. The 16" width DPS product facilitates linear installation around 4" diameter dryer ductwork without material cutting or scrap. To temporarily secure the insulation, optional use of foil tape is permitted. Seal all cut edges with aluminum foil tape to ensure there is no exposed fiber. 18 gauge steel tie wire should be utilized for permanent attachment. Locate the wire ½" from the blanket edge and on maximum 12" centers. Twist tension the wire to firmly hold the wrap system in place, but not so tight as to cut or damage the blanket. Installation details are provided below for additional illustration.

Plenum Applications

For plastic items, cut the insulation to a length sufficient to wrap around the combustible item(s) plus provide a minimum 1" perimeter overlap. Seal all cut edges with aluminum foil tape to ensure there is no exposed fiber. The adjacent piece of insulation should be long enough to wrap around the circumference of the item plus a 1" perimeter overlap. This piece shall also be installed with a minimum 1" longitudinal overlap on to the previously installed piece.

To temporarily secure the insulation, optional use of foil tape is permitted. 24 gauge steel tie wire or ½" steel banding should be utilized as a permanent attachment. Locate the wire or banding ½" from the blanket edge and on 11½" centers. Twist tension the wire or tighten banding to firmly hold the wrap system in place, but not so tight as to cut or damage the blanket. Hand tightening of wire is adequate.

Unifrax has a wide range of FyreWrap fire protection materials available to provide passive fire protection solutions in a variety of applications in the commercial building, industrial facility and transportation industries.

For additional information about product performance or for assistance identifying the recommended product for your fire protection application, please contact Unifrax at 716-768-6500 and ask for Fire Protection Application Engineering.

FP-837

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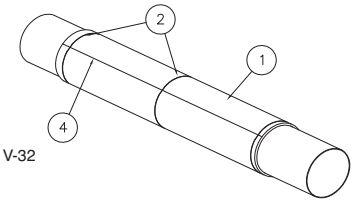
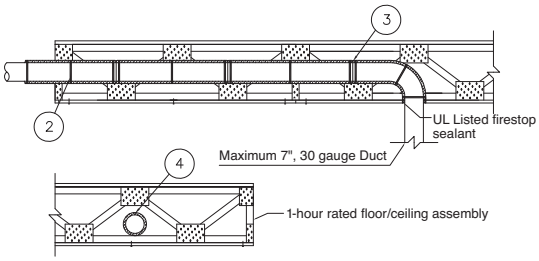
Figure 1: 4" Dryer Duct



UL Assembly No. V-32

NOTE: Minimum 1" compression butt joints or overlaps for material joints.

Figure 2: Tested Membrane Penetration Assembly



NOTE: Seal all cut edges with aluminum foil tape.

UL Assembly Nos. F-C-7057, F-C-7058

Legend:	
1	FyreWrap® DPS Insulation, One Layer
2	18 Gauge Steel Tie Wire or Banding, 12" on center
2a	24 Gauge Steel Tie Wire or Banding, 11.5" on center
3	Perimeter 1" Compression Butt Joint
3a	Perimeter Overlap 1" Min.
4	Longitudinal 1" Compression Butt Joint
4a	Longitudinal Overlap 1" Min.

Figure 3: Single Plastic Pipe/Cable Item

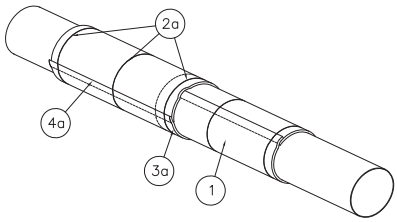
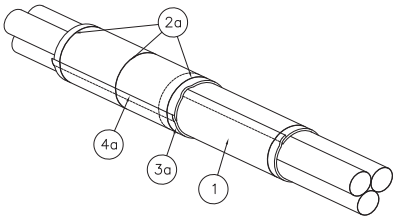


Figure 4: Plastic Pipe/Cable Bundle



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FyreWrap

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