FyreWrap® 0.5 Plenum Insulation

Introduction
Unifrax’s FyreWrap® 0.5 Plenum Insulation is a high-temperature insulation blanket specifically designed to provide a single layer, flexible enclosure around combustible items located within fire-rated return air plenums. 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 0.5 Plenum Insulation provides fire protection for these installed items by preventing flame propagation and smoke development in the plenum area. FyreWrap 0.5 Plenum Insulation offers the following product features:

- Lightweight, flexible product form
- Easy to cut, fabricate, wrap around pipes or cables
- Thin, single layer design
- High-temperature, biosoluble insulation
- Durable foil-scrim tested covering
- GREENGUARD listed for Microbial Resistence

Typical Product Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Thickness</td>
<td>1/2”</td>
</tr>
<tr>
<td>Nominal Density</td>
<td>8pcf</td>
</tr>
<tr>
<td>Standard Product Form</td>
<td>Scrim Encapsulated</td>
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<tr>
<td>Product Availability</td>
<td>24”w x 25LF</td>
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<td>48”w x 25LF</td>
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Typical System Properties

- Intertek Laboratories (OPL) Listed
- UL 1887 – modified results
- Plastic Pipe and Cable Sheathing
- Plastic Pipe Size (minimum)
- Plastic Coated Cable Groupings
- ASTM E136 Non-combustibility
- ASTM E84, UL 723, ULC S102.2

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Specification</th>
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<tr>
<td>Flame Spread Rating</td>
<td>Zero &lt;25</td>
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<tr>
<td>Smoke Developed Rating</td>
<td>Zero &lt;50</td>
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Complies with: IMC2015
**Installation** (Figure 1)
The FyreWrap 0.5 Plenum Insulation System is a single layer application, which is to be applied directly on to the surface of the combustible item. To minimize waste, FyreWrap 0.5 Plenum should be rolled out tautly before measuring and making any material cuts. Install the single layer of material with a 1” overlap at all transverse and longitudinal joints. All visually exposed blanket edges are to be sealed with aluminum foil tape and the use of filament tape is not required but is permitted to ease installation.

1 Unifrax's FyreWrap DPS product complies with the same testing as FyreWrap 0.5 Plenum and can be installed as an alternate to achieve the appropriate rating for a combustible item.

2 The FyreWrap 0.5 Plenum Insulation may be installed either linearly or with multiple adjacent pieces along the length of combustible item.

**Attachment Method** (Figure 1)
Either min. 24 ga. steel tie wire or 1/2” steel banding is to be utilized as the permanent attachment method. Place the chosen attachment method within a 1/4” of all transverse terminations and add additional tie wire/bands as needed to ensure the spacing is max. 11 1/2” on center. Twist tension the tie 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. The banding is to be secured with 1/8” crimp clips.

Figure 1. Installation Detail

FyreWrap® 0.5 Plenum Insulation System

**Legend:**
1 FyreWrap® 0.5 Plenum Insulation, One Layer
2 Steel tie wire or banding
3 Aluminum foil tape to seal cut edges
4 Longitudinal overlap 1” min.
5 Perimeter overlap 1” min.

Note: Seal all cut edges with Aluminum foil tape.

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.

Refer to the product Safety Data Sheet (SDS) No. M0406 for recommended work practices and other product safety information.