**MONOKOTE® Z-3306**

Thermal barrier

**Product Description**

MONOKOTE® Z-3306 thermal barrier is a cemenitious fire protective coating specifically formulated for application over rigid, urethane and polystyrene foam plastics. Spray applied to interior foam surfaces on walls and ceilings, the product forms a hard, durable, monolithic thermal barrier against heat and fire.

MONOKOTE® Z-3306 thermal barrier is a mill-mixed product requiring only the addition of water. It can be easily applied to required thickness in a single pass resulting in an efficient, low cost method of meeting building code and insurance requirements.

In developing MONOKOTE® Z-3306 thermal barrier, GCP Construction Products has utilized its experience and technology as the producer of MONOKOTE® spray applied fireproofing products – the most widely used structural steel fireproofing brand in North America. Sales and technical personnel located throughout the United States and Canada provide close technical support to contractors, owners and specifiers.

**Benefits**

While specific requirements differ from locality to locality, the use of foam plastics for most building occupancies is permitted only when they are protected by an approved thermal barrier. MONOKOTE® Z-3306 thermal barrier has been successfully fire-tested and listed by Underwriters Laboratories Inc. Intertek and Factory Mutual. This product has a proven field and laboratory record of performance, reliability, ease of application and low in-place cost.

- **Proven fire test performance** - MONOKOTE® Z-3306 thermal barrier has successfully passed all International Building Code (IBC) and National Building Code of Canada (NBC) requirements as a thermal barrier over foam plastics.
- **Economical** - Ease of installation makes this product a low cost way to protect foam plastics.
- **Workable** - After being spray applied, MONOKOTE® Z-3306 thermal barrier may be lightly trowelled.
- **Damage resistant** - MONOKOTE® Z-3306 thermal barrier dries to a hard, durable surface which resists damage.
- **Humidity resistant** - MONOKOTE® Z-3306 thermal barrier can be used in high humidity conditions and reduces sweating often experienced in vegetable storage areas.
- **Washable** - When trowelled and painted, it can be washed and cleaned.

<table>
<thead>
<tr>
<th>TEST AGENCY</th>
<th>TEST METHOD</th>
<th>SUBSTRATE</th>
<th>THICKNESS OF Z-3306</th>
<th>TEST RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underwriters Laboratories Inc.</td>
<td>UL 1715 (Room fire test)</td>
<td>Urethane foam</td>
<td>3/8 in. (10 mm)</td>
<td>Passed</td>
</tr>
<tr>
<td>(ULI) (USA)</td>
<td>(UBC 26-3)</td>
<td>Styrene foam</td>
<td>3/8 in. (10 mm)</td>
<td>Passed</td>
</tr>
<tr>
<td>ULI (USA)</td>
<td>ASTM E119 Exposure (UBC 26-2)</td>
<td>Urethane foam</td>
<td>3/4 in. (19 mm)</td>
<td>15 minute rating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urethane foam</td>
<td>1 1/8 in. (29 mm)</td>
<td>30 minute rating</td>
</tr>
</tbody>
</table>
ULI (USA)   ASTM E84 Exposure (Tunnel test)   Urethane foam   1/2 in. (13 mm)   Flame spread 10
Styrene foam   1/2 in. (13 mm)   Smoke developed 5

Intertek   CAN / ULC S101-14   Urethane foam   1 in. (24 mm)   10 minutes
1 in. (24 mm)   20 minutes
1 in. (24 mm)   40 minutes

ULC (Canada)   CAN4-S124M   Urethane foam   7/8 in. (21 mm)   Classification A
11/16 in. (16 mm)   Classification B
13/16 in. (20 mm)   Classification C
11/16 in. (16 mm)   Classification D

Interkek   NFPA 286   Urethane foam   15/16 in. (23 mm)   Passed

Factory Mutual Systems   FM 4975   Urethane foam   7/8 in. (21 mm)   Delay ignition 10–15 minutes
Styrene foam   1 1/8 in. (29 mm)   Delay ignition 10–15 minutes

*Test results are based on ASTM E119 testing. CAN/ULC-S101 is equivalent to ASTM E119.

Physical Properties

- **Bond strength** – 500 lbs/ft²
- **Color** – Gray or off-white
- **Theoretical yield** – 25 bd ft/bag (50 ft² at 1/2 in. thickness)

Installation

MONOKOTE®Z-3306 thermal barrier is packaged in poly-lined bags for easy handling and storage.

FIREBOND®Concentrate (bonding agent) must be applied to all surfaces before application of MONOKOTE®Z-3306 thermal barrier.

MONOKOTE®Z-3306 thermal barrier is mixed with water in a plaster type mixer to form a consistent, pumpable slurry. This slurry is then spray applied.

Where desired, the natural sprayed texture of the product can be lightly trowelled to form a semi-smooth, paintable surface. A thin (nominal 1/16 in.) latex stucco overspray may be applied to form a hard eggshell finish, capable of withstanding significant physical contact and surface abrasion.

Typical Applications*

MONOKOTE®Z-3306 thermal barrier may be used to protect foam plastics in many types of buildings. The following is a brief list of typical applications:
- Breweries, freezers and coolers
- Controlled atmosphere apple, potato and vegetable storage
- Ice arenas and recreation centers
- Indoor tennis courts and swimming pools
- Pig and dairy barns
- Seed storage and processing
- Water treatment plants

*NOTE: Many food processing applications require local inspection agency approvals in advance of installation