MONOKOTE® Z-3306

Thermal barrier

Product Description

MONOKOTE® Z-3306 thermal barrier is a cementitious 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.

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 ahard, 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.

Physical Properties

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

TEST AGENCY	TEST METHOD	SUBSTRATE	THICKNESS OF Z-3306	TEST RESULTS
Underwriters Laboratories Inc. (ULI) (USA)	UL 1715 (Room fire test) (UBC 26-3)	Urethane foam Styrene foam	3/8 in. (10 mm) 3/8 in. (10 mm)	Passed Passed
ULI (USA)	ASTM E119 Exposure (UBC 26-2)	Urethane foam Urethane foam	3/4 in. (19 mm) 1 1/8 in. (29 mm)	15 minute rating 30 minute rating
ULI (USA)	ASTM E84 Exposure (Tunnel test)	Urethane foam Styrene foam	1/2 in. (13 mm) 1/2 in. (13 mm)	Flame spread 10 Smoke developed 5 Flame spread 5 Smoke developed 0
	ASTM E2768-11	Cement Board	1 in. (24 mm)	Flame - 0 Smoke - 0
Intertek	CAN / ULC S101-14	Urethane foam	1 in. (24 mm) 1 in. (24 mm) 1 in. (24 mm)	10 minutes 20 minutes 40 minutes
ULC (Canada)	CAN4-S124M	Urethane foam	7/8 in. (21 mm) 11/16 in. (16 mm) 13/16 in. (20 mm) 11/16 in. (16 mm)	Classification A Classification B Classification C Classification D
Interkek	NFPA 286	Urethane foam	15/16 in. (23 mm)	Passed

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

* NFPA 275 requirements include ASTM E119 and a room corner test (NFPA 286, FM 4880 or UL 1715).

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 abratsion.

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

Temperature and Ventilation

a. The substrate temperature shall be a minimum of 40°F (4.5°C) for at least 1-hour prior to the application of the MONOKOTE Z-3306. Additionally, the air and substrate temperature during application and for a minimum or 72 hours after application shall be no less than 40°F (4.5°C).

b. Provisions shall be made for ventilation to properly dry the fire proofing after application. In enclosed areas lacking natural ventilation, air circulation and ventilation must be provided to achieve a minimum total air exchange rate of 4 times per hour until material is substantially dry.

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