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 utilised its experience and technology as the producer of Monokote spray applied fireproofing products - the most widely used structural steel fireproofing brand in North America.

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) 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 - 2,441 kg/m^2 (500 lbs/ft^2)
- Color - Gray or off-white
- Theoretical yield - 2.36 m^2/bag at 25mm thickness & 4.54 m^2/bag at 13mm thickness (25 bd ft/bag &50 ft^2 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 plastertype 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 1.56 mm (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

TEST AGENCY	TEST METHOD	SUBSTRATE	THICKNESS OF Z-3306	TEST RESULTS
Underwriters Laboratories Inc. (ULI) (USA)	UL 1715 (Room fire test)	Urethane foam	10 mm (3/8 in.)	Passed
	(UBC 26-3)	Styrene foam	10 mm (3/8 in.)	Passed
ULI (USA)	ASTM E119 Exposure (UBC 26-2)	Urethane foam	19 mm (3/4 in.)	15 minute rating
		Urethane foam	29 mm (1 1/8 in.)	30 minute rating
ULI (USA)	ASTM E84 Exposure (Tunnel test)	Urethane foam	13 mm (1/2 in.)	Flame spread 10 Smoke developed 5
		Styrene foam	13 mm (1/2 in.)	Flame spread 5 Smoke developed 0
Intertek	CAN / ULC S101-14	Urethane foam	24 mm (1 in.)	10 minutes
			24 mm (1 in.)	20 minutes

			24 mm (1 in.)	40 minutes
ULC (Canada)	CAN4-S124M	Urethane foam	21 mm (7/8 in.)	Classification A
		Urethane foam	16 mm (11/16 in.)	Classification B
		Urethane foam	20 mm (13/16 in.)	Classification C
		Urethane foam	16 mm (11/16 in.)	Classification D
		Urethane foam	23 mm	Passed
Factory Mutual Systems	FM 4975	Urethane foam	21 mm (7/8 in.)	Delay ignition 10-15 minutes
		Styrene foam	29 mm (1 1/8 in.)	Delay ignition 10-15 minutes

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gcpat.com.au/solutions/products/monokote-fireproofing/monokote-z-3306