

## DURATHERM® OS

### Spray foam system

#### Product Description

**DURATHERM® OS** is an HCFC AND CFC FREE two component, 1:1 ratio, rigid foam system which when processed through suitable spray machinery (Graco, Gusmer, Glas-Craft) will produce a rigid foam of approximate density 35kg/m<sup>3</sup> with exceptionally good compressive strength. Service Temp range -15°C to 70°C. When tested to BS476 part 7 the foam achieves a Class 1 surface spread of flame.

#### Uses

**DURATHERM® OS** is used for:

- Retrofit insulation / stabilisation for pitched / flat roofs
- New build insulation
- Loft conversions
- Commercial buildings
- Ocean going yachts / canal barges

**DURATHERM® OS** can be used to upgrade the thermal performance of roofs, floors or walls of any property, to meet current building regulations. Standard **DURATHERM® OS** should not be used on substrates below 5°C.

#### Equipment

**DURATHERM® OS** can be processed through all standard foam spray machines. The machine should be capable of maintaining the mix ratio at ±2% accuracy and controlling the component temperatures at 40-50°C (variable).

#### Recommended machine settings

Block Temperature	<i>Minimum, operating</i>	100-120°F / 40-50°C
Hose Temperature Reading	<i>Minimum, operating</i>	100°F / 40°C
Chemical Pressures	<i>Minimum, operating</i>	500 psi, <b>not greater than 200 psi difference iso / res</b>



Isothane Limited, Newhouse Road  
Huncoat Business Park, Accrington  
Lancashire BB5 6NT UK  
Telephone: + 44 (0) 1254 872555  
Facsimile: + 44 (0) 1254 871522  
Order Fax Line: +44 (0) 1254 398295  
Email: info@isothane.com  
Website: www.isothane.com  
Registration No: 2975728



INVESTORS  
IN PEOPLE



Certificate No. FM 21549



Certificate No. EMS 68443

## DURATHERM® OS

### Spray foam system

#### Spray Techniques

**The guidelines in Isothane Limited's standard specification should be followed but the general requirements are as follows.**

- The substrate should be clean, dry and free of dirt, grease, oil and loose particles.
- In certain cases primer may be necessary to maximise adhesion.
- Climatic conditions must be suitable for spraying with regard to humidity and wind velocities.
- The foam should be built up in passes of not less than 15mm and not more than 10 minutes should elapse between passes.
- The requirements of any relevant Agrément Certificates or British Standards should be followed.

#### Physical Properties

**DURATHERM® OS** is a two component, modified polyurethane rigid foam which, sprayed through suitable foam machinery, gives a product of nominal density 35 kg/m<sup>3</sup>.

Laboratory test results (typical):-

Cream time	3-5	seconds
Tack free time	10-16	seconds
Rise time	20-30	seconds
Free rise density	26-30	kg/m <sup>3</sup>

#### Storage, Handling and Personal Protection

Shelf Life 12 months. The recommendations in our Safety Data Sheet for this product must be followed at all times. More general information is included in our publication "A Guide to the Safe Handling of Polyurethane Chemicals" and in the following Technical Data Sheets which are available on request:-

- Fire safety when Storing, Handling and Installing Polyurethane Foam.
- Decontamination of Isocyanates using Isothane Decontaminant.

This information is of a general nature and is supplied without recommendation or guarantee. It does not make claim to be free from patent infringement. Properties shown are typical and do not imply specification tolerances. Liability for loss or damage through use cannot be accepted except for death or injury caused by negligence on the part of Isothane Ltd. Whilst these specifications are based on expert knowledge, practical experience and laboratory testing, successful application depends upon the nature and conditions in which the products are applied. Users must, by comprehensive testing, ensure suitability of product for own use. Without control or supervision of the preparation for and application of Isothane products, general guarantees cannot be offered.



Isothane Limited, Newhouse Road  
Huncoat Business Park, Accrington  
Lancashire BB5 6NT UK  
Telephone: + 44 (0) 1254 872555  
Facsimile: + 44 (0) 1254 871522  
Order Fax Line: +44 (0) 1254 398295  
Email: info@isothane.com  
Website: www.isothane.com  
Registration No: 2975728



INVESTORS  
IN PEOPLE



Certificate No. FM 21549



Certificate No. EMS 68443

**Typical Properties Of DURATHERM® OS Foam Core**

		<u>Value</u>	<u>Test Method</u>
Core density		35 - 40 kg/m <sup>3</sup>	BS4370
Compressive strength	Parallel to rise	220 kpa	BS4370
Closed Cell Content		88 % min.	ASTM D2856
Thermal Conductivity	Aged, <80mm	0.028 W/mK	BS EN 12667
	Aged, 80-120mm	0.026 W/mK	BS EN 12667
	Aged, >120mm	0.025 W/mK	BS EN 12667
Water Vapour Permeability	80 - 100mm, 38°C, 88% RH	7.16 ng/Pa.sm	BS4370
Dimensional Stability	1 day @ -15°C	- 0.53 % vol.	BS4370
	1 day @ 80°C	+ 0.75 % vol.	BS4370
	1 day @ 100°C	+ 0.93 % vol.	BS4370
<b>Ozone Depletion Potential</b>		<b>ZERO</b>	

*Burning Characteristics – These are laboratory scale tests and bear no relation to the performance of the material in a real fire situation. Care must be exercised in the end use to satisfy the demands of the Fire Authorities, and moral obligations to the safety of persons and property.*

Extent of burn	3.6 mm	BS4735-74
Surface spread of flame	Class 1	BS476 pt. 7-97



This information is of a general nature and is supplied without recommendation or guarantee. It does not make claim to be free from patent infringement. Properties shown are typical and do not imply specification tolerances. Liability for loss or damage through use cannot be accepted except for death or injury caused by negligence on the part of Isothane Ltd. Whilst these specifications are based on expert knowledge, practical experience and laboratory testing, successful application depends upon the nature and conditions in which the products are applied. Users must, by comprehensive testing, ensure suitability of product for own use. Without control or supervision of the preparation for and application of Isothane products, general guarantees cannot be offered.



Isothane Limited, Newhouse Road  
Huncoat Business Park, Accrington  
Lancashire BB5 6NT UK  
Telephone: + 44 (0) 1254 872555  
Facsimile: + 44 (0) 1254 871522  
Order Fax Line: +44 (0) 1254 398295  
Email: info@isothane.com  
Website: www.isothane.com  
Registration No: 2975728



Certificate No. FM 21549



Certificate No. EMS 68443