

LD40

Rigid foam system

DESCRIPTION

LD40 is a two component, 1:1 ratio, CFC & HCFC FREE rigid foam system which when processed through suitable dispense machinery will produce a rigid foam of approximate density 40 kg/m³ with good compressive strength, cell structure and other physical properties.

USES

LD40 is a general-purpose system for use in a wide variety of moulding applications where the foam needs gradual rise.

LD40 is used in the thermal insulation of large panels, water heaters, storage tanks, refrigerated containers, behind produce store pressure walls and related double skin applications. It is particularly useful for the filling of large volumes where its gradual rise and excellent flow properties are used to best advantage.

EQUIPMENT

LD40 can be processed through all standard foam dispense equipment. The machine should be capable of maintaining the mix ratio at $\pm 2\%$ accuracy and controlling the component temperatures at 20 - 50°C. Consult Isothane technical staff for a specific recommendation.

COMPONENT DESCRIPTION

LD40 RESIN is a fully formulated liquid mixture. It should be stored in sealed tanks or drums and ideally should be heated to 20 \pm 5°C before use.

M27 ISO is a liquid mixture containing crude diphenylmethanediisocyanate. It should be stored in sealed tanks or drums and ideally should be heated to 20 \pm 5°C before use.

Stored under the above conditions the system has a shelf life of 12 months. See page 2 for component properties.



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



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Physical Properties

LD40 is a two component, modified polyurethane rigid foam which, processed through suitable foam machinery, gives a product of nominal density 40 kg/m³.

Laboratory test results (typical):-

Cream time	13 - 18	seconds
Rise time	140 - 168	seconds
Free rise density	31 - 34	kg / m ³

Storage, Handling and Personal Protection

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.

Typical Properties

	<u>LD40 RESIN</u>	<u>M27 ISO</u>
Appearance	Light amber liquid	Dark brown liquid
Viscosity	400 cps @ 20°C	150 - 270 cps @ 25°C
Specific Gravity	1.12 - 1.18 @ 20°C	1.24 ± 0.02
Mixing Ratio	100 parts by wt. 100 parts by vol.	109 parts by wt. 100 parts by vol.
Process	Moulding / Cavity Fill	

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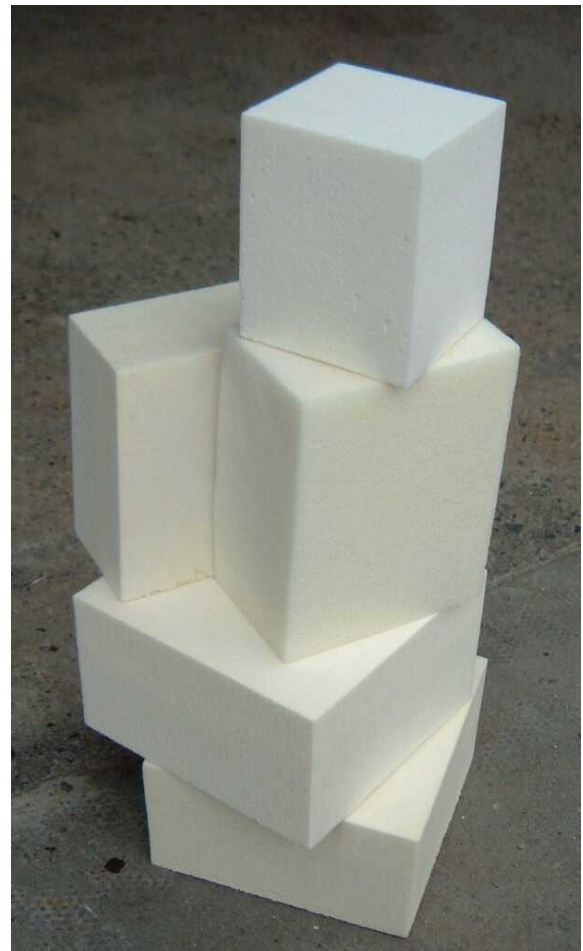


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TYPICAL PROPERTIES OF LD40

FOAM CORE

	VALUE	TEST METHOD
Core density	37 kg / m ³	BS 4370
Compressive strength Parallel to rise	200 kN / m ²	BS 4370
Shear Tensile strength Perpendicular to rise	230 kPa	BS 4370
Closed Cell Content	90 % min	BS 4370
Thermal Conductivity 20°C Mean - Initial	0.0213 W / mK	BS EN ISO 12667
- Aged	0.0234 W / mK	BS EN ISO 12667
Ozone Depletion Potential	ZERO	



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