CI/SfB June 2011
(27.9) Rn7 M2
DATA SHEET No. ICO1598

PRODUCT DATA SHEET

Thermazone Torch-on Board

Polyisocyanurate (PIR) Insulation Board

Description

Facings: Thermazone Torch-on Board is faced on the underside with a mineralised glass tissue autohesively bonded to the insulation core during manufacture. The top surface is finished with a bitumen-coated glass tissue finished with a thermofusible polypropylene fleece.
Core: Thermazone Torch-on Board is manufactured from a high performance CFC/HCFC–free polyisocyanurate (PIR) based formulation with a typical density of 32 kg/m^3.
Thermazone Torch-on Board is manufactured without the use of CFCs/HCFCs and has zero Ozone Depletion Potential (ODP) and a low Global Warming Potential (GWP).

Uses

Thermazone Torch-on Board is suitable for use with Icopal Profiles and Total Torch waterproofing systems.
It is suitable for use over all types of structural deck and must always be laid over a vapour control layer.

For detailed waterproofing specifications please contact Icopal's Technical Department.

Application

When used with the Profiles/Total Torch systems the insulation boards are bonded by torch application which involves heating the stripes on the upper surface of the vapour control layer to disperse the thermofusible film and activate the bitumen stripes. The boards are positioned onto the vapour control layer and pressed into the surface ensuring a good and uniform bond. Boards must be close butted and laid staggered (broken joints).

Wind Loadings

Wind loadings should be assessed in accordance with '*BS6399-2:1997 Loadings for Buildings. Code of practice for wind loads*'.

Attachment

Thermazone Torch-on Board may be attached to other suitable vapour control layers using either hot bitumen, polyurethane insulation adhesive, or by mechanically fastening. When Thermazone Torch-on Board is used over metal decks attention must be paid to the requirement of the insulation board to comply with the minimum thicknesses shown in the table below.

Trough Width (mm)	Minimum Board Thickness (mm)
≤ 75	25
76-100	30
101-125	35
126-150	40
151-175	45
176-200	50

Board Sizes

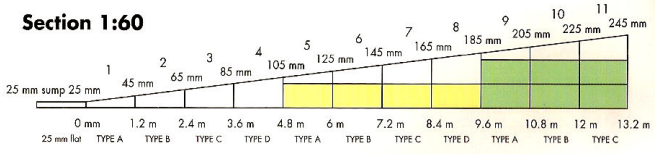
Flat Board

Length (mm)	600
Width (mm)	600
Thickness (mm)[1]	25, 30, 40, 50, 60, 80, 90, 100, 110,120
Thickness (mm)[2]	140 (60mm + 80mm) 160 (80mm + 80mm) 180 (90mm +90mm)

1 Supplied as one piece solid board.
2 Supplied as two piece board for site lamination.

Tapered Roofing

Thermazone Torch-on Board is also available in a tapered version, tapering at 1:60 across a 1200mm length.



ISO9001:2000 QMS
Q5556

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Taper Board

Length (mm)	1200
Width (mm)	600
Thickness (mm)	25/45, 45/65, 65/85, 85/105

Jumper/Packer Board

Length (mm)	600
Width (mm)	600
Thickness (mm)	80

Performance and Properties

Compressive Strength: Typically the compressive strength of Thermazone Torch-on Board exceeds 150kPa at 10% compression and 125kPa at 5% when tested to '*BS EN 826:1996 Thermal Insulating Products for Building applications. Determination of Compressive Behaviour*'.

Water Vapour Resistance: Modified to include board facings, the board achieves a resistance greater than 15MNs/g when tested in accordance with '*BS 4370-2:1993 (Methods of test for rigid cellular materials. Methods 7 to 9)'*. Thermazone Torch-on Board must be laid over a vapour control layer.

Durability: When correctly applied Thermazone Torch-on Board has an indefinite life. Its durability depends on the supporting structure and the conditions of its use.

Resistance to Solvents, Fungi & rodents: The insulation core is resistant to short term contact with petrol and with most dilute acids, alkalis and mineral oils. However it is recommended that any spills be cleaned off fully before the boards are installed. Ensure that safe methods of cleaning are used, as recommended by the suppliers of the spilt liquid.

The insulation core is not resistant to some solvent–based adhesive systems, particularly those containing methylethylketone. Adhesives containing such solvents should not be used in association with this product. Damaged boards, or boards that have been in contact with harsh solvents or acids should not be used.

The insulation core and facings used in the manufacture of Thermazone Torch-on Board resist attack by mould and microbial growth, and do not provide any food value to vermin.

Thermal Properties: The λ–values and R–values quoted are in accordance with the Harmonised European Standard '*BS EN 13165: 2001 (Thermal insulation products for buildings – Factory made rigid polyurethane foam (PUR) products – Specification)'* using so called 90 / 90 principles. Comparison with alternative products may not be appropriate unless the same procedures have been followed.

Thermal Conductivity: The boards achieve a thermal conductivity (λ–value) of
0.026 W/m.K *(insulant thickness < 80 mm)*;
0.025 W/m.K *(insulant thickness 80–119 mm)*; and
0.024 W/m.K *(insulant thickness > 120mm)*.

Thermal Resistance
Thermal resistance (R–value) varies with thickness and is calculated by dividing the thickness of the board (expressed in metres) by its thermal conductivity value.

Insulant Thickness (mm)	Thermal Resistance (m^2.K/W)
60	2.30
80	3.20
85	3.40
90	3.60
95	3.80
100	4.00
110	4.40
120	5.00
125	5.20
130	5.40
140	5.80

Falls

The fall on a flat roof should be smooth and steep enough to prevent the formation of rainwater ponds. To ensure adequate drainage, '*BS 6229: 2003 (Flat roofs with continuously supported coverings. Code of practice)'* recommends uniform gradients of not less than 1 in 80.
The fall on a flat roof constructed using Thermazone Torch-on Board is normally provided by the supporting structure being directed towards the rainwater outlets. However, because of building settlement, it is advisable to design to even greater falls. These can be provided by the use of a Thermazone Insulation Tapered Roofing System.

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Packing

The boards are supplied in labelled shrink wrapped packs. For board quantities per pack see tables below.

Flat Board

Board Thickness (mm)	Pack Size (No. Boards)
25	24
30	20
40	16
50	12
60	10
80	8
90	6
100	6
110	6
120	4
140	4x60 & 4x80
160	8 x 80
180	8 x 90

Tapered Board

Board Thickness (mm)	Pack Size (N°. Boards)
25/45	8
45/65	6
65/85	4
85/105	4

Jumper/Packer Boards

Board Thickness (mm)	Pack Size (N°. Boards)
80	8

Typical Specification

The insulation to be Thermazone Torch-on Board, as supplied by Icopal Limited, Barton Dock Road, Stretford, Manchester M32 0YL. Tel: 0161 865 4444 Fax: 0161 865. The insulation is to be installed in accordance with Icopal's instructions and the requirements of BS 8217: Reinforced bitumen membranes for roofing - Code of practice

NBS Specification

Thermazone Torch-on Board is specified using the following:
Clauses: J41/420
Product: Thermazone Torch-on Board
Manufacturer: Icopal Ltd. Barton Dock Road, Stretford, Manchester, M32 0YL. Tel: 0161 865 4444 Fax: 0161 865 8433.

Quality Assurance

Thermazone Torch-on Board is supplied under a Quality Management System approved to *ISO 9001: 2000* by BSI Quality Assurance.

QMS: Q5556

Storage

The polythene packaging of Thermazone Insulation products should not be considered adequate for long term outdoor protection. Ideally, boards should be stored inside a building. If, however, outside storage cannot be avoided, then the boards should be stacked clear of the ground and covered with a polythene sheet or weatherproof tarpaulin. Boards that have been allowed to get wet should not be used.

Health And Safety

Thermazone Insulation products are chemically inert and safe to use. Health and safety data sheets are available for all materials. Please contact Icopal's Technical Services Department for further information.

Warning: Do not stand on or otherwise support your weight on this board unless it is fully supported by a load bearing surface.

Technical Services

Specialist advice and design guidance on all matters relating to this product, including CAD detailing for all insulation and waterproofing requirements, is freely available from our Technical Department at the address below

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