



DANOPREN® 500 TL

THERMAL INSULATION
FOR BASEMENTS
AND FLOORS

A DANOPREN® 500 TL
solution in partnership with



DANOPREN® 500 TL thermal insulation is manufactured from rigid extruded polystyrene (XPS) foam, free of CFC, HCFC and HFC compounds. The 1250mm long by 600mm wide panels are produced using an extrusion process which provides a closed-cell structure, unlike other open-cell alternatives.



- **DOES NOT ABSORB WATER**

Since DANOPREN® has a closed cell structure, long-term water absorption is negligible. This allows the insulation and its benefits to remain stable over time.



- **BREATHABLE**

Reduces the risk of interstitial condensation forming as DANOPREN® boards are breathable.



- **HIGH COMPRESSION RESISTANCE**

DANOPREN® 500 boards resist point loads up to 500 kPa.



- **LASTING PERFORMANCE**

Extensive testing demonstrates consistent performance during the lifespan of the board.



- **QUICK AND SIMPLE INSTALLATION**

DANOPREN® boards are light and easy to cut without the need for specialist tools. The interlocking sides of the board facilitate an easy installation and reduce the risks of thermal bridging.



- **INTERNATIONALLY CERTIFIED**

Independently tested and certified by leading bodies such as AENOR and ACERMI. Environmental credentials independently verified with a full EPD.



- **100% RECYCLABLE**

DANOPREN® can be recycled on end of use.





DANOPREN® 500 TL boards are produced in 50mm thickness and are used to form an insulated spacer adjacent to waterguard and floor drain drainage channels within the Wykamol BBA certified waterproofing system.

The insulation boards have a high compressive resistance of 500 kPa and feature a specially designed slotted profile underneath. This, in combination with the perimeter and cross floor drainage channels of the Wykamol membrane system forms a fully draining supporting spacer below the floor drainage membrane.

DANOPREN® 500 TL can also be used as a protection board for Wykamol external type A waterproofing systems. Applied externally, the board offers protection, insulation and drainage.



Environmental Information

An Environmental Product Declaration (EPD) is an independently verified assessment of the environmental impact of a product.

This quantified assessment allows a full life-cycle environmental impact of the product to be considered, all in accordance with the international standard EN ISO 14025.

EPDs therefore provide objective, transparent, comparable sets of data, right through from raw material extraction, manufacturing to end use.

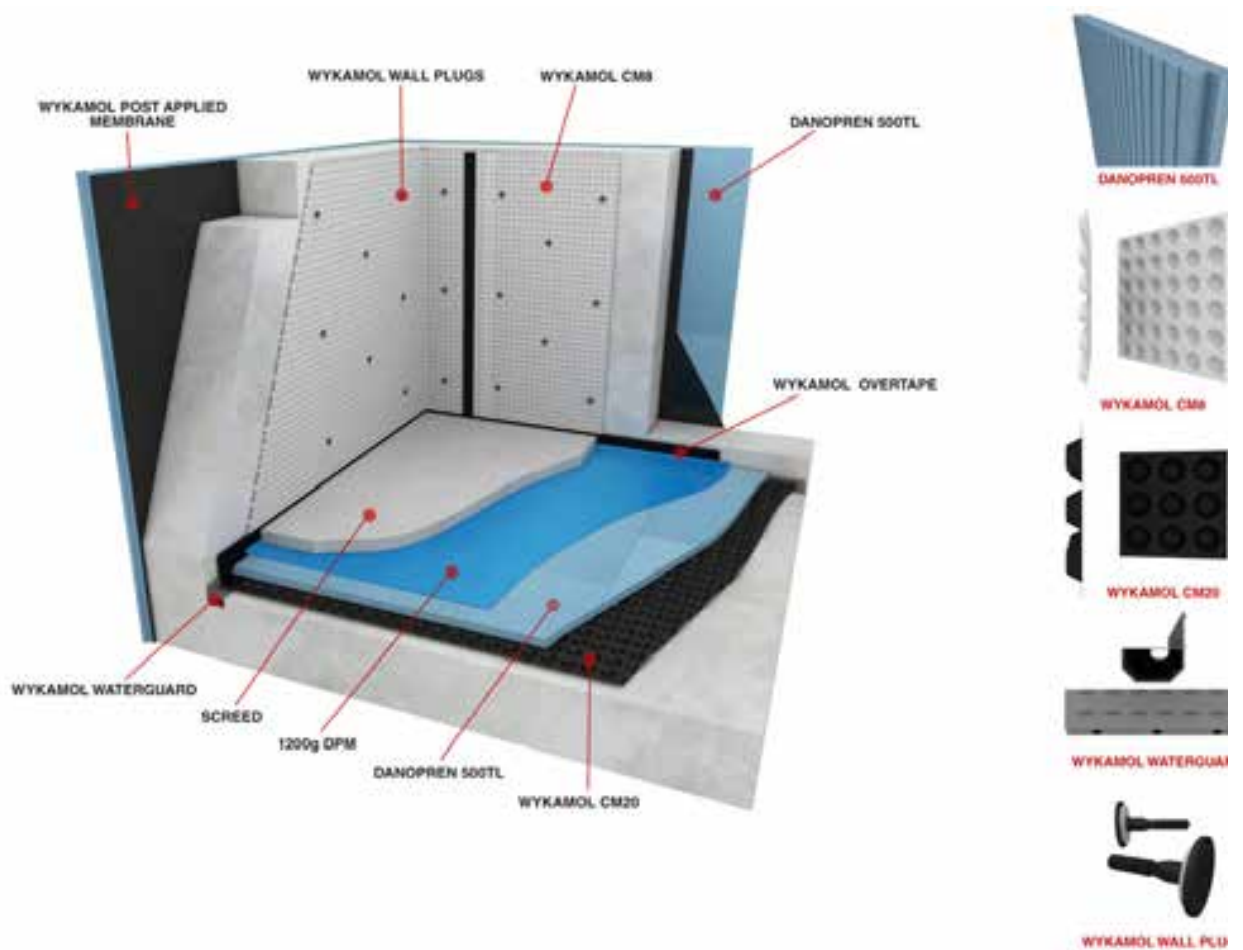
You can find out more information about EPDs and download the full EPD assessment from:
www.envirodec.com



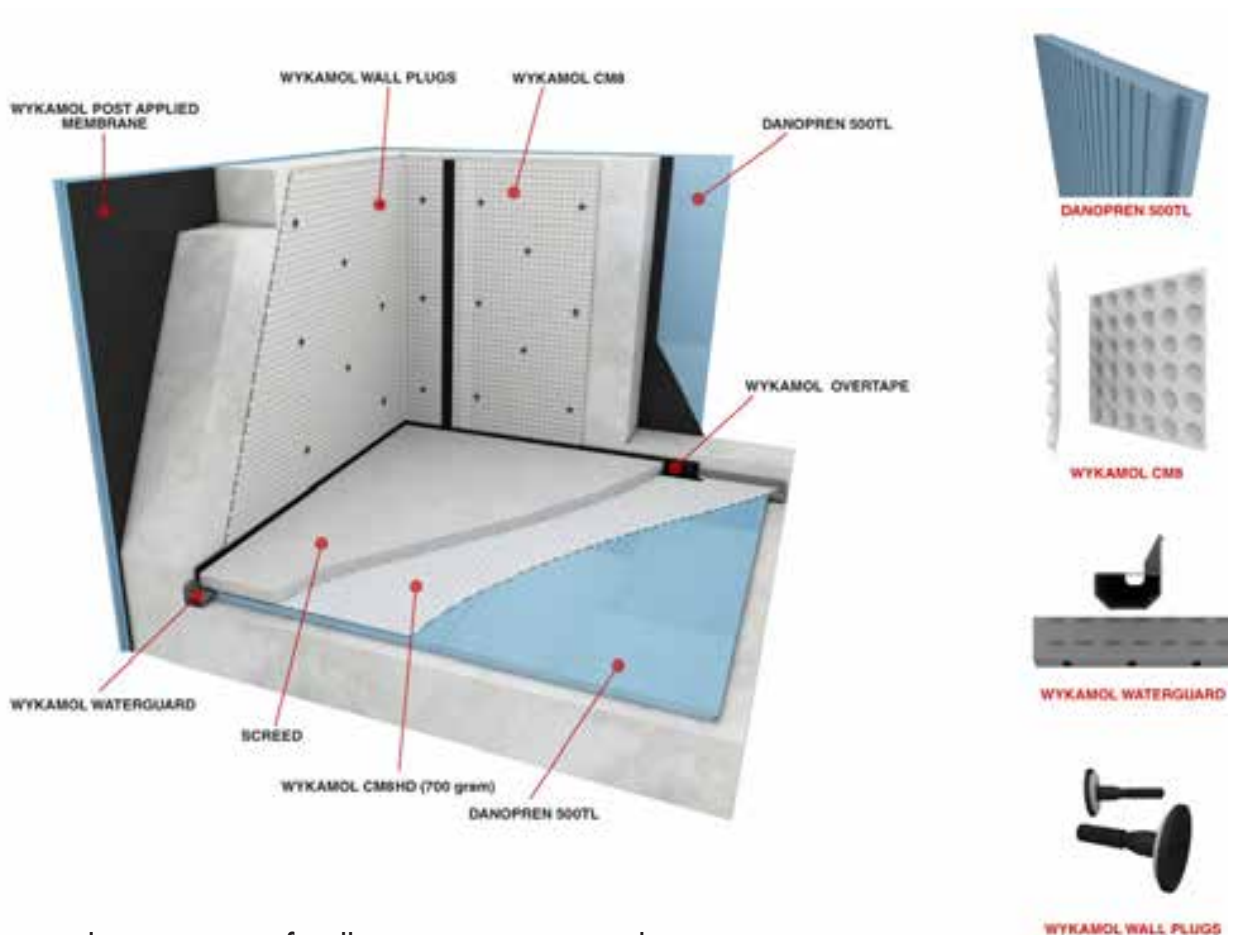
ADDITIONAL ENVIRONMENTAL PROPERTIES

CFC and HCFC Free	Yes
Ozone Depletion Potential (ODP)	0
Global Warming Potential (GWP)	<5
BRE Green Guide Rating	A (typical result)

TYPICAL INSULATED FLOOR SYSTEM WITH DANOPREN® 500 TL



TYPICAL TYPE C WATERPROOFING SYSTEM WITH DANOPREN® 500 TL



Drawings show typical constructions for illustrative purposes only.
Please contact us for full system specifications and further information.

Installation Instructions

1. Ensure that the surfaces are clean, dry, without large projections steps or gaps.
2. Insulation boards may either be mechanically fastened, adhered or loose laid and should be interlocked with corresponding ship-lapped edges.
3. Boards should be laid in a staggered brick-like pattern with joints lightly butted. There should be no gaps at abutments.
4. In multi-layer applications, the same principals apply but board joints should be offset from the underlying layers to reduce the risk of thermal bridging.

Note: When mechanically fastening DANOPREN® 500 TL, all washers should be situated at least 50mm but from the board edges and corners and should not overlap board joints.



Technical Information

TECHNICAL CHARACTERISTICS	STANDARD	AVERAGE DATA	UNITS
Thickness Tolerance	EN 823	50 ± 2	mm
Length Tolerance	EN 822	1250 ± 8	mm
Width Tolerance	EN 822	600 ± 8	mm
Flatness	EN 825	6	mm/m
Squareness	EN 824	5	mm/m
Thermal Conductivity (50mm)	EN 12667	0.034	W/mK
Compressive Strength	EN 826	≥ 500	kPa
Compressive Creep - Max. 2% Deflection (50 YEARS)	EN 1606	≥ 150	kPa
Long-Term Water Absorption by Total Immersion	EN 12087	≤ 0.7	vol. %
Long-Term Water Absorption by Diffusion	EN 12088	≤ 3	vol. %
Water Absorption by Freeze-Thaw Cycling	EN 12091	≤ 1	vol. %
Water Vapour Diffusion Resistance Factor	EN 12086	≥ 80	
Dimensional Stability	EN 1604	≤ 5	%
Reaction to Fire	EN 13501-01	EUROCLASS E	-
Coefficient of Linear Thermal Expansion	-	0.07	mm/m·K
Working Temperature Range	-	-50 TO +75	°C
Specific Heat Capacity	-	1.450	J/kg·K
Nominal Density	EN 1602	38	kg/m ³

Storage

Store DANOPREN® 500 TL in a cool, dry area inside original packaging. Boards should be stored on a flat, level surface.



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