

TECHNICAL DATA SHEET

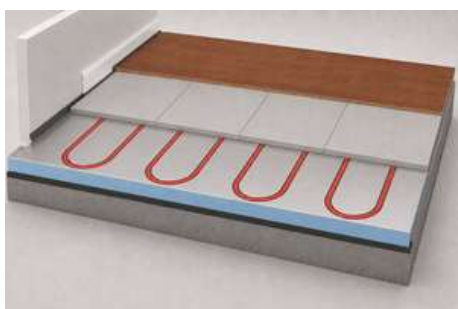
SCREEDPRO™ Q-THERM UFH SYSTEMS

LOW-PROFILE AND RAISED DRY FLOOR SYSTEMS WITH INTEGRATED UNDERFLOOR HEATING
 WARMTH UNDERFOOT. QUIET BY DESIGN.

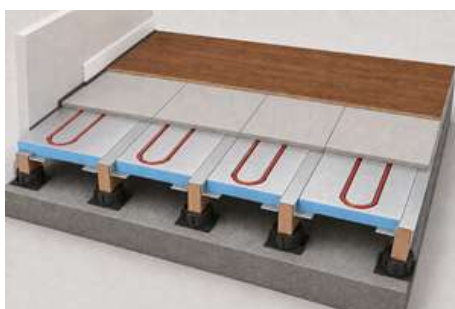
ScreedPro™ Q-Therm combines a high-density dry screed floor panel with pre-routed XPS insulation and acoustic isolation options to create a coordinated underfloor-heating floor build-up without a wet screed. The range covers low-profile upgrades, adjustable raised floors and an enhanced heat-spreader configuration.

The completed ScreedPro™ deck can be ready to receive the selected floor finish within 24 hours, subject to the approved jointing and fixing procedure and the floor-finish manufacturer's requirements.

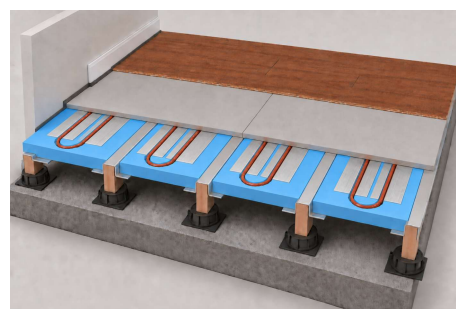
TECHNICAL REVIEW STATUS Declared component data and calculated thermal resistance values are identified in this sheet. Indicative acoustic values are design estimates only and must not be represented as tested Q-Therm system results.



Q-THERM 1



Q-THERM 2



Q-THERM 3

Select the system

System	Best suited to	Typical depth	Defining feature
Q-Therm 1	Low-profile direct-to-slab floor	48mm standard*	5mm MCW Impact R5 below 25mm pre-routed XPS
Q-Therm 2	Raised and levelled floor with service void	123mm typical*	Acoustic cradles, battens and aluminium XPS supports
Q-Therm 3	Raised floor requiring enhanced heat distribution	123mm typical*	Q-Therm 2 structure plus recessed aluminium spreader plates

**Before the selected floor finish. Q-Therm 1 uses the standard 18mm ScreedPro™ panel. Q-Therm 2 and 3 dimensions depend on the cradle adjustment, batten depth and selected deck thickness.*

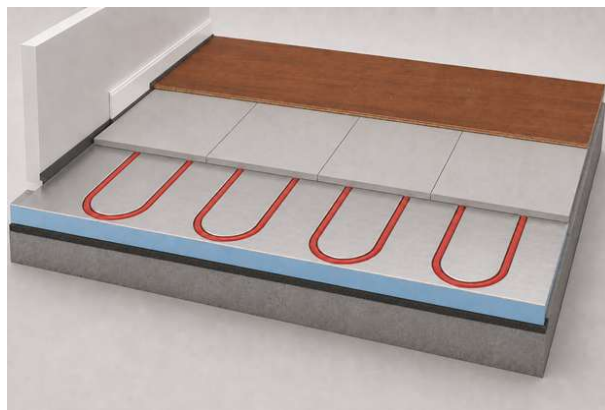
Range benefits

- Pre-routed thermal modules designed for 12mm or 16mm UFH pipework.
- Dry installation avoids curing times associated with a traditional wet screed.
- Optional raised and levelled structure creates a usable service void.
- Acoustic separation is provided by MCW Impact R5 in Q-Therm 1 or resilient cradle supports in Q-Therm 2 and 3.

Q-THERM 1

LOW-PROFILE ACOUSTIC UFH FLOOR SYSTEM

Q-Therm 1 is the lowest-profile configuration in the range. It combines a continuous 5mm acoustic layer with 25mm pre-routed XPS and a high-density ScreedPro™ panel, starting from 48mm before the floor finish.



System build-up - top to bottom

Layer	Component	Function / requirement
5	Floor finish	Selected finish and adhesive/underlay system, installed to the finish manufacturer's instructions
4	ScreedPro™ dry screed floor panel	18mm standard panel; optional 25mm, 28mm or 30mm panel where specified.
3	UFH pipework	12mm or 16mm pipe fitted into the pre-routed XPS channels to the approved UFH design.
2	Pre-routed foil-faced XPS 300	25mm thermal insulation layer with channels matched to the selected pipe diameter.
1	MCW Impact R5	5mm continuous recycled-rubber resilient layer, with perimeter isolation maintained.
0	Structural floor	Clean, dry, sound and level concrete slab; DPM or sealer where required.

Key dimensions and performance

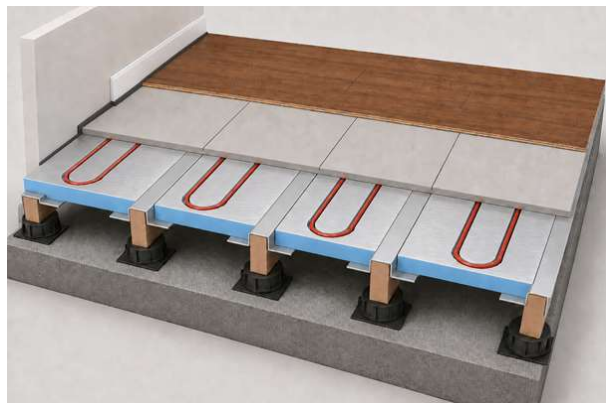
Property	Declared / design value
Standard system depth	48mm before floor finish: 5mm R5 + 25mm XPS + 18mm ScreedPro™ panel.
Optional system depths	55mm / 58mm / 60mm with 25mm / 28mm / 30mm ScreedPro™ panels.
Resistance above UFH	0.090 m²K/W through the standard 18mm ScreedPro™ panel; floor finish and adhesive excluded.
UFH pipe compatibility	12mm or 16mm; routing centres and circuit design to be confirmed for the project.
XPS thermal data	25mm XPS: indicative R = 0.758 m²K/W using $\lambda = 0.033 \text{ W/(m·K)}$; verify against the selected supplier DoP.
R5 thermal conductivity	$\lambda = 0.06 \text{ W/(m·K)}$; calculated R-value at 5mm = 0.083 m²K/W.
Acoustic performance	Q-Therm 1 system result not established. R5 reference: up to ΔL_w 21 dB in a separate tested assembly.*
Structural / fire status	System capacity is project-specific. ScreedPro™ panel: manufacturer-declared reaction to fire Class A1.

ACOUSTIC EVIDENCE *The ΔL_w 21 dB reference relates to a tested assembly comprising 45mm anhydrite screed, 5mm acoustic layer and 140mm concrete slab. It must not be presented as a tested Q-Therm 1 system result.

Q-THERM 2

RAISED AND LEVELLED ACOUSTIC UFH FLOOR SYSTEM

Q-Therm 2 creates an adjustable raised floor above the structural slab. Acoustic cradles and timber battens establish the finished floor level and service void, while aluminium brackets support the pre-routed XPS between the battens.



System build-up - top to bottom

Layer	Component	Function / requirement
7	Floor finish	Selected finish and adhesive/underlay system, installed to the finish manufacturer's instructions.
6	ScreedPro™ dry screed floor panel	18mm standard panel; optional 25mm, 28mm or 30mm panel where specified.
5	UFH pipework	12mm or 16mm pipe within pre-routed XPS, installed to the approved hydraulic design.
4	Pre-routed XPS panels	Installed between battens with the upper face finishing flush with the batten tops.
3	Aluminium support brackets	Formed over each batten to support the XPS edges and maintain the module level.
2	Timber battens	45mm wide × 70mm deep in the illustrated arrangement; other depths may be project-selected.
1	Acoustic cradles	Adjustable supports incorporating resilient isolation and approved levelling components.
0	Structural floor	Clean, dry, sound and ready to receive the cradle-and-batten grid.

Key dimensions and performance

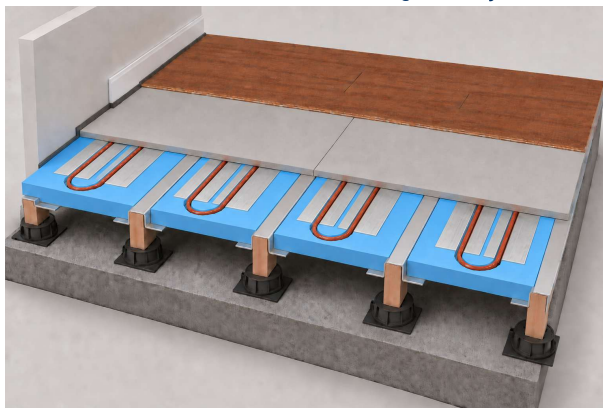
Property	Declared / design value
Typical support-zone depth	105mm from structural floor to batten top in the illustrated arrangement.
Typical overall depth	123mm before floor finish with the standard 18mm ScreedPro™ panel.
Resistance above UFH	0.090 m²K/W through the standard 18mm ScreedPro™ panel; floor finish and adhesive excluded.
UFH pipe compatibility	12mm or 16mm; routing, centres, circuit lengths and flow rates are project-specific.
Indicative acoustics	Approx. ΔLw 27 dB; L'nT,w 48 dB; DnT,w + Ctr 54 dB. Design estimates only.*
Structural / fire status	Load capacity is project-specific. ScreedPro™ panel: manufacturer-declared reaction to fire Class A1.

ACOUSTIC EVIDENCE *Indicative values are based on replacing 18mm chipboard in the reference cradle-and-batten construction with an 18mm high-density ScreedPro™ panel. They are not tested Q-Therm 2 results.

Q-THERM 3

ENHANCED HEAT-DISTRIBUTION ACOUSTIC UFH FLOOR SYSTEM

Q-Therm 3 builds on the raised Q-Therm 2 structure and adds recessed aluminium heat-spreader plates. The plates improve lateral heat distribution beneath the ScreedPro™ deck while retaining the adjustable service void and resilient cradle support.



System build-up - top to bottom

Layer	Component	Function / requirement
8	Floor finish	Selected finish and adhesive/underlay system, installed to the finish manufacturer's instructions.
7	ScreedPro™ dry screed floor panel	18mm standard panel; optional 25mm, 28mm or 30mm panel where specified.
6	Recessed aluminium spreader plates	1,000 × 130 × 0.4 mm plates, each with one longitudinal pipe groove, to improve lateral heat distribution.
5	UFH pipework	12mm or 16mm pipe installed within the routed modules to the approved UFH design.
4	Pre-routed XPS panels	Installed between battens with the upper face flush to the supporting structure.
3	Aluminium support brackets	Formed over each batten to support the XPS panel edges.
2	Timber battens	45mm wide × 70mm deep in the illustrated arrangement; other depths may be project-selected.
1	Acoustic cradles	Adjustable resilient supports with approved levelling components.
0	Structural floor	Clean, dry, sound and ready to receive the cradle-and-batten grid.

Key dimensions and performance

Property	Declared / design value
Typical support-zone depth	105mm from structural floor to batten top in the illustrated arrangement.
Typical overall depth	123mm before floor finish with the standard 18mm ScreedPro™ panel.
Resistance above UFH	0.090 m²K/W through the standard 18mm ScreedPro™ panel; floor finish and adhesive excluded.
UFH pipe compatibility	12mm or 16mm; routing, centres, circuit lengths and flow rates are project-specific.
Spreader plate	1,000 × 130 × 0.4 mm aluminium plate with one longitudinal pipe groove.
Heat distribution	Enhanced lateral distribution; output in W/m² requires a project-specific UFH calculation.
Indicative acoustics	Approx. ΔLw 27 dB; L'nT,w 48 dB; DnT,w + Ctr 54 dB. Design estimates only.*
Structural / fire status	Load capacity is project-specific. ScreedPro™ panel: manufacturer-declared reaction to fire Class A1.

PERFORMANCE STATUS *The acoustic values are not tested Q-Therm 3 results. The aluminium plates improve lateral heat spreading but do not materially change the vertical resistance of the ScreedPro™ panel.

SCREEDPRO™ / Q-THERM UFH SYSTEMS

TECHNICAL PERFORMANCE

THERMAL, ACOUSTIC, STRUCTURAL AND FIRE INFORMATION

System performance summary

System	R above UFH ¹	Acoustic performance	System load	Fire performance
Q-Therm 1	0.090 m²K/W	R5 reference: up to ΔLw 21 dB*	Project-specific	ScreedPro™ A1; system not declared
Q-Therm 2	0.090 m²K/W	Approx. ΔLw 27 dB; L'nT,w 48 dB; DnT,w + Ctr 54 dB**	Project-specific	ScreedPro™ A1; system not declared
Q-Therm 3	0.090 m²K/W	Approx. ΔLw 27 dB; L'nT,w 48 dB; DnT,w + Ctr 54 dB**	Project-specific	ScreedPro™ A1; system not declared

ScreedPro™ thermal resistance

Panel thickness	Calculated R-value	Application
18mm	0.090 m²K/W	Standard Q-Therm panel
25mm	0.125 m²K/W	Optional
28mm	0.140 m²K/W	Optional
30mm	0.150 m²K/W	Optional

Structural and load information

Item	Declared / calculated information
18mm ScreedPro™ areal weight	26.1 kg/m²; calculated from 1,450 kg/m³ density.
18mm panel weight	Approx. 18.8 kg per 600 × 1200mm panel.
MCW Impact R5	Maximum traffic load 60 kN/m² - component value, not a Q-Therm system rating.
XPS 300	Nominal 300 kPa compressive strength at 10% compression; verify selected supplier DoP.

Fire classification

Element	Status
ScreedPro™ panel	Manufacturer-declared reaction to fire Class A1; verify certificate and standard reference before publication.
Complete Q-Therm system	No standalone reaction-to-fire classification or fire-resistance period is declared.

PERFORMANCE NOTES ¹Resistance above the UFH is through the standard 18mm ScreedPro™ panel only and excludes adhesive and floor finish. ^{*}R5 result is from a separate screeded test assembly. ^{**}Q-Therm 2 and 3 figures are indicative design estimates based on a comparable tested cradle floor and are not tested system results.