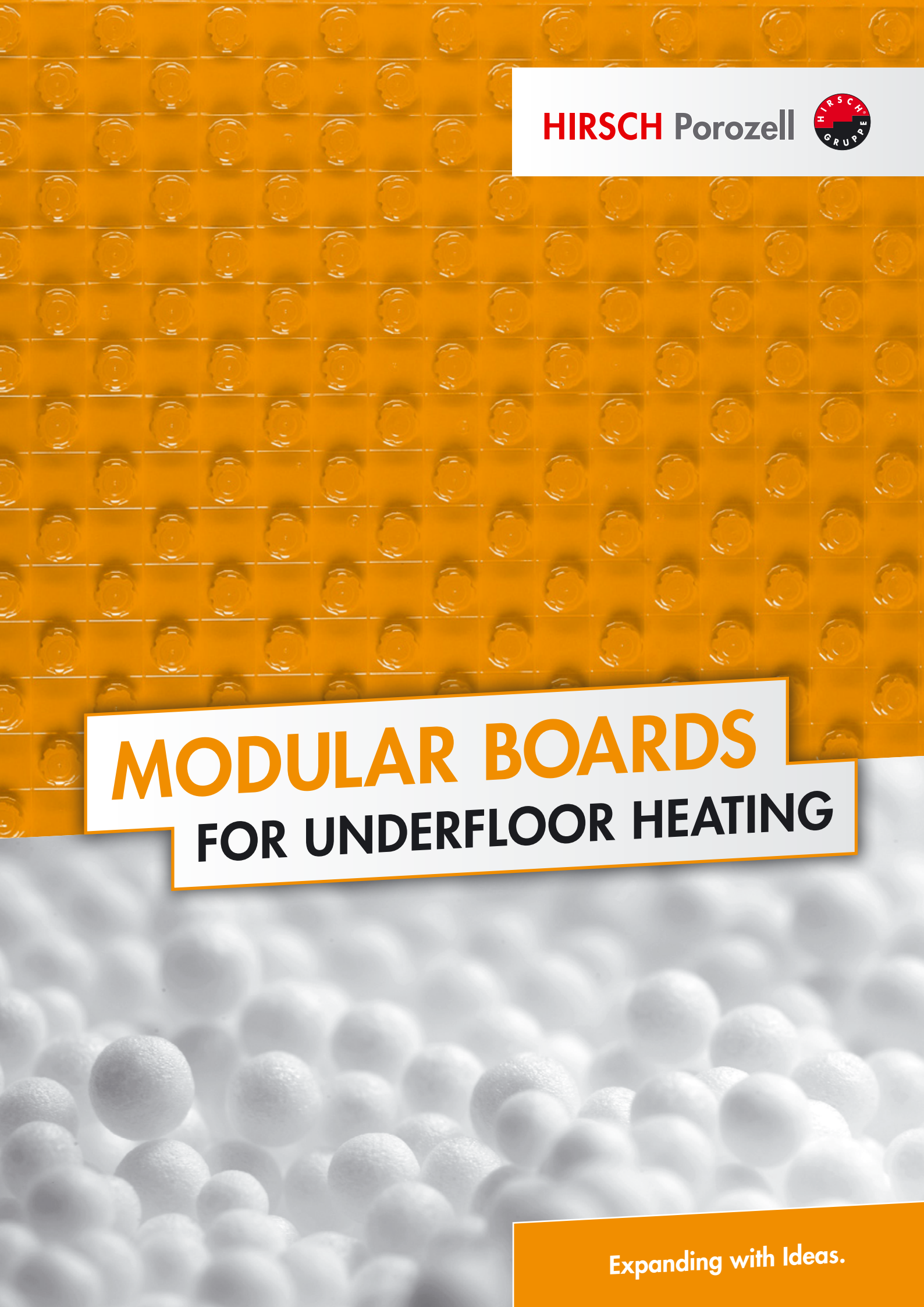
HIRSCH Porozell

MODULAR BOARDS
FOR UNDERFLOOR HEATING



Expanding with Ideas.

HIRSCH Porozell – THE Partner for System Users for Over 25 Years.

As a system supplier, HIRSCH develops, produces and sells **boards for top-quality radiant floor heating systems.** Working together with floor system users, we have added products with impact sound insulation and improved thermal insulation to suit individual tubes and system requirements. Dedicated to being a strategic partner, HIRSCH helps OEM customers and sales partners to make their products more exclusive and their services more valuable.

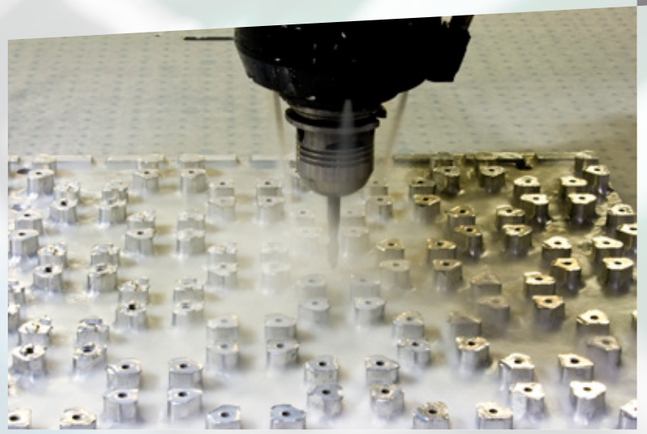
HIRSCH can draw on many years' **experience in the development, manufacture and sale of over 50 million square meters of floor system boards.** We have our own mold shop and use proven technologies, such as HIRSCH *Combitop deep drawing*, HIRSCH *laminating* and HIRSCH *skin molding* processes, which result in a range of benefits including reduced floor height, exact tube routing, lower screed volume, fast one-man installation and improved controllability.

With **partners in over European 25 countries,** HIRSCH is Europe's leading manufacturer and OEM supplier for castellated boards using various technologies.

What plays a major role in HIRSCH's success is consistently **high quality in development and production.** It forms the basis for the high levels of customer satisfaction achieved.

OWN MOLD SHOP

- Various, flexible geometries
- Custom solutions



STATE-OF-THE-ART PRODUCTION

- Production centers in Austria, Poland and Romania
- Central location for the eastern and western European markets

RESPONSIBILITY FOR QUALITY

- ISO 9001 and ISO 14001 certification at all plants
- Regular standardized checks and audits carried out

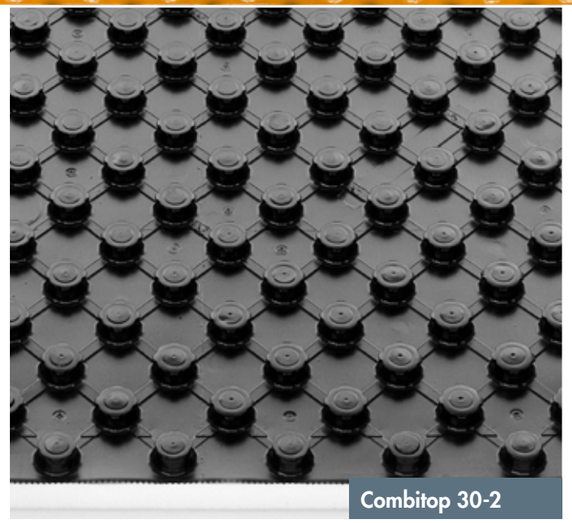
CUSTOMER SATISFACTION

- Wide range
- Exclusive products
- 100% system user loyalty

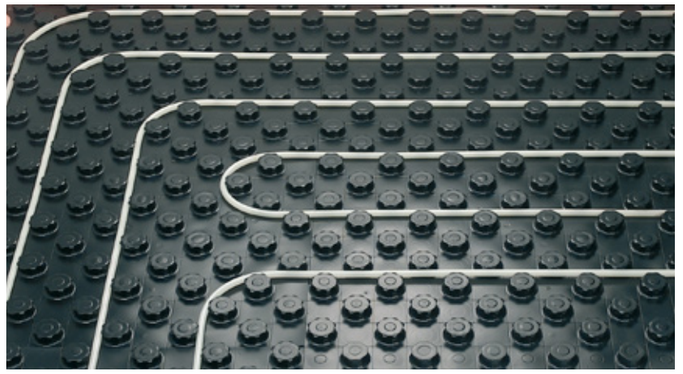
LLOYD'S REGISTER LRQA
ISO 9001 · ISO 14001
UKAS MANAGEMENT SYSTEMS
001

HIRSCH COMBITOP Range
Highly versatile

5 cm / 6.5 cm / 7.5 cm grid


Combitop 30-2


Castellation on castellation joining



COMBITOP

- **Manufactured using the Combitop deep-drawing process**
- **Improved non-slip properties**
- **Castellation on castellation joining** means that there is practically no waste
- **The castellations** ensure that the heating tubes are kept securely in place
- **One board for several tube dimensions** The special castellation design enables flexible use of the Combitop board for up to 17 mm heating tubes.

DOUBLE-DENSITY MODULAR BOARD 30-2

- **Excellent non-slip properties**
- **Optimal sound insulation**


Combitop ND 11

Coated polystyrene rigid foam (EPS) thermal insulation board


Combitop 35-2

Coated impact sound insulation made of polystyrene rigid foam (EPS)


Combitop 30-2

Coated impact sound insulation made of polystyrene rigid foam (EPS)


Double-Density Modular Board 30-2

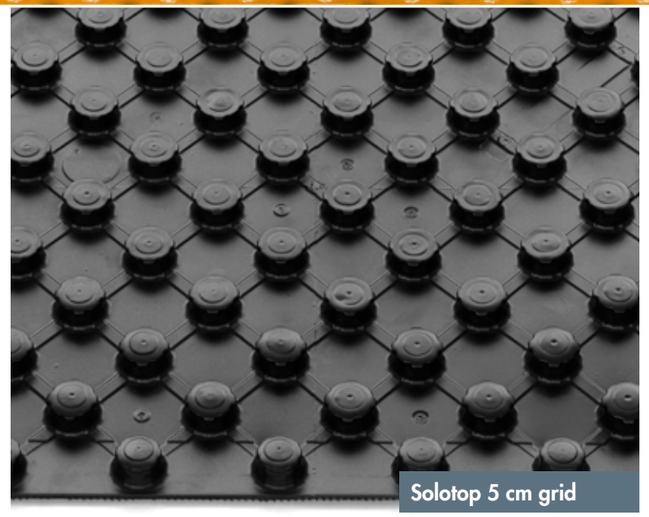
Coated polystyrene rigid foam (EPS) board with exceptional impact sound insulation

TECHNICAL DATA HIRSCH COMBITOP 5 cm grid (example)

PROPERTIES	COMBITOP ND 11	COMBITOP 35-2	COMBITOP 30-2	DD MODULAR BOARD 30-2
Board size (length x width)	1450 x 850 mm	1450 x 850 mm	1450 x 850 mm	1450 x 850 mm
Effective board size (length x width)	1400 x 800 mm	1400 x 800 mm	1400 x 800 mm	1400 x 800 mm
Effective area	1.12 m²	1.12 m²	1.12 m²	1.12 m²
Grid (tube spacing)	50 mm	50 mm	50 mm	50 mm
Nominal insulation thickness dL	11 mm (thickness supplied)	35 – 2 mm	30 – 2 mm	30 – 2 mm
Total thickness with tube holder	31 mm	54 mm	51 mm	51 mm
Tube diameter	14 – 17 mm	14 – 17 mm	14 – 17 mm	14 – 17 mm
Designation to EN 13163	EPS-EN13163-T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)5-DLT(1)5-BS250-CS(10)150	EPS-EN13163-T(0)-L(3)-W(3)-S(5)-P(10)-DS(N)5-BS100-SD30-CP2	EPS-EN13163-T(0)-L(3)-W(3)-S(5)-P(10)-DS(N)5-BS100-SD30-CP2	EPS-EN13163-T(0)-L(3)-W(3)-S(5)-P(10)-DS(N)5-BS100-SD20-CP2
Application type to DIN 4108-10	DEO	DESsg	DESsg	DESsg
Building material class to EN 13501-1	E	E	E	E
Density	30 kg/m³	20 kg/m³	20 kg/m³	–
Impact sound reduction	–	26 dB	26 dB	28 dB
Stiffness group to EN 13163	–	SD 30	SD 30	SD 20
Thermal conductivity (nominal value)	0.035 W/(mK)	0.040 W/(mK)	0.040 W/(mK)	0.040 W/(mK)
Thermal resistance	0.31 m²K/W	0.85 m²K/W	0.75 m²K/W	0.75 m²K/W
Heat distortion temperature	80 °C	80 °C	80 °C	80 °C
Max. live load	75 kPa (7500 kg/m²)	5 kPa (500 kg/m²)	5 kPa (500 kg/m²)	5 kPa (500 kg/m²)
Flexural strength	≥ 250 kPa	≥ 100 kPa	≥ 100 kPa	≥ 100 kPa
Moisture proofing to DIN 18560	Polystyrene (PS)	Polystyrene (PS)	Polystyrene (PS)	Polystyrene (PS)
Polystyrene film standard color	black	black	black	black
Pack unit per box	13 boards = 14.56 m²	6 boards = 6.72 m²	6 boards = 6.72 m²	6 boards = 6.72 m²
Box size (L x B x H)	1510 x 280 x 860 mm	1510 x 280 x 860 mm	1510 x 280 x 860 mm	1510 x 280 x 860 mm

Data sheets for other products in this range available on request.

HIRSCH SOLOTOP Range


Solotop 5 cm grid

5 cm / 6.5 cm / 7.5 cm grid

- Castellated boards made of deep-drawn 1 mm thick polystyrene film
- Laid on thermal and impact sound insulation
- Suitable for cement and self-leveling screed

TECHNICAL DATA HIRSCH SOLOTOP (example)

PROPERTIES	5 cm grid
Board size (length x width)	1450 x 850 mm
Effective board size (length x width)	1400 x 800 mm
Effective area	1.12 m²
Grid (tube spacing)	50 mm
Castellation height, total	20 mm
Tube diameter	14 – 17 mm
Film	Polystyrene (PS)
Film thickness	1 mm (1000 µ)
Moisture proofing to DIN 18560	Polystyrene (PS) 1 mm
Weight per board	approx. 1280 g
Polystyrene film standard color	black
Max. live load	5 kPa (500 kg/m²)
Pack unit per pallet	130 panels/pallet = 145.6 m²/pallet
Pack unit per box	12 panels = 13.44 m²

Data sheets for other products in this range available on request.

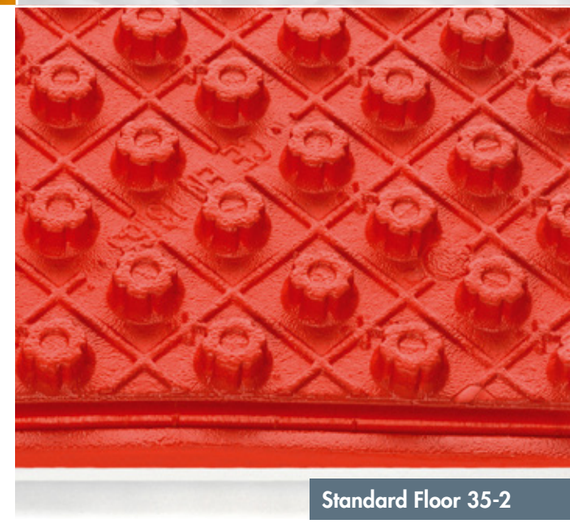

Laying Solotop


5 cm grid


6.5 cm grid

- **Ideal for renovations**
- **Deep-drawn part can be attached** for joining panel parts, therefore no waste

HIRSCH LAMINATED Range


Standard Floor 35-2

5 cm / 7.5 cm / 10 cm grid

Laminated impact sound insulation made of expanded polystyrene (EPS).

TECHNICAL DATA 5 cm grid (example)

PROPERTIES	35-2	ND 15
Board size (length x width)	1030 x 530 mm	1030 x 530 mm
Effective board size (length x width)	1000 x 500 mm	1000 x 500 mm
Effective area	0.50 m²	0.50 m²
Grid (tube spacing)	50 mm	50 mm
Nominal insulation thickness dL	35 mm (thickness supplied)	15 mm (thickness supplied)
Total thickness with tube holder	57 mm	39 mm
Tube diameter	16 – 18 mm	16 – 18 mm
Designation to EN 13163	EPS-EN13163-T(0)-L(3)-W(3)-S(5)-P(30)-DS(N)5-BS100-SD30-CP2	EPS-EN13163-T(2)-L(3)-W(3)-S(5)-P(30)-DS(N)5-DLT(1)5-BS250-CS(10)150
Application type to DIN 4108-10	DESsg	DEO
Building material class to EN 13501-1	E	E
Density	23 kg/m³	30 kg/m³
Impact sound reduction	26 dB	–
Stiffness group to EN 13163	SD 30	–
Thermal conductivity (nominal value)	0.040 W/(mK)	0.035 W/(mK)
Thermal resistance	0.85 m²K/W	0.40 m²K/W
Heat distortion temperature	80 °C	80 °C
Max. live load	5 kPa (500 kg/m²)	80 kPa (8000 kg/m²)
Flexural strength	≥ 100 kPa	≥ 250 kPa
Moisture proofing to DIN 18560	Polystyrene (PS) 0.4 mm	Polystyrene (PS) 0.4 mm
Polystyrene film standard color	black	black
Pack unit per box	12 boards = 6 m²	16 boards = 8 m²
Box size (L x B x H)	1040 x 640 x 540 mm	1040 x 640 x 540 mm

Data sheets for other products in this range available on request.


Simple installation, optimal tube protection with castellations


Interlocking joint

- **High surface strength with 0.4 mm thick film**
- **Easy installation**
  Simply press the heating tubes between the castellations
- **Proven interlocking joint**
  The hooked edge of one board securely locks into the groove on the next. Self-leveling screed can be used without any problems
- **Thermal and impact sound insulation**
- **Exact tube routing**
- **Fast one-man installation**
- **Reduced floor height**
- **Lower screed volume**

HIRSCH SKIN MOLDING Range

5 cm / 7.5 cm grid

Coated polystyrene rigid foam (EPS) thermal insulation board

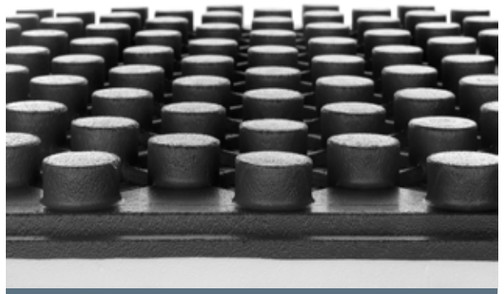
Skin Molding ND 30

TECHNICAL DATA HIRSCH SKIN MOLDING 5 cm grid (example)

PROPERTIES	ND 30	ND 15
Board size (length x width)	1230 x 730 mm	1230 x 730 mm
Effective board size (length x width)	1200 x 700 mm	1200 x 700 mm
Effective area	0.84 m²	0.84 m²
Grid (tube spacing)	50 mm	50 mm
Nominal insulation thickness dL	30 mm	15 mm
Total thickness with tube holder	60 mm	45 mm
Tube diameter	16 – 18 mm	16 – 18 mm
Designation to EN 13163	EPS-EN 13163-T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)5-DLT(1)5-BS250-CS(10)150	EPS-EN 13163-T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)5-DLT(1)5-BS250-CS(10)150
Application type to DIN 4108-10	DEO	DEO
Building material class to EN 13501-1	E	E
Density	25 kg/m³	25 kg/m³
Thermal conductivity (nominal value)	0.035 W/(mK)	0.035 W/(mK)
Thermal resistance	0.85 m²K/W	0.40 m²K/W
Heat distortion temperature	80 °C	80 °C
Max. carrying capacity	15 kPa (1500 kg/m²)	15 kPa (1500 kg/m²)
Moisture proofing to DIN 18560	Polystyrene (PS)	Polystyrene (PS)
Pack unit per box	10 boards = 8.4 m²	10 boards = 8.4 m²
Box size (L x B x H)	1250 x 500 x 740 mm	1250 x 380 x 740 mm

Data sheets for other products in this range available on request.

5 cm grid



7.5 cm grid

- Thermal insulation
- Moisture barrier
- Universal application

ACCESSORIES
TECHNICAL DATA

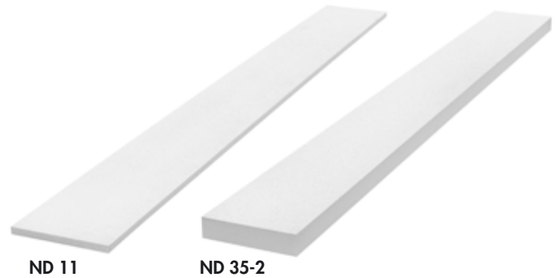
ADD-ON PIECE		
Size	1400 x 200 mm	
Grid (tube spacing)	50 mm	
For tubes	14 mm	17 mm
Polystyrene film thickness	0.60 mm	
Pack unit	16 pieces/box	14 pieces/box

Deep-drawn part without EPS insulation, ideal for door transitions

TUBE FASTENER		
Delivery form	10 strips of 4 pieces: perforated	
Grid (tube spacing)	50 mm	
For tubes	14 mm	17 mm
Polystyrene film thickness	0.60 mm	
Pack unit	40 pieces/box	

Also enables tubing to be laid under 45 degrees

INSULATION STRIPS	ND 11	ND 35-2
Strip size / effective useful area	1400 x 150 mm	
Effective useful area per deep-drawn part	0.21 m²	
Nominal insulation thickness	10 mm	35 mm
Pack unit	20 pieces/box	10 pieces/box



ND 11 ND 35-2

EPS insulation without deep-drawn part, ideal for door transitions

JOINING PIECE		
Size	1400 x 100 mm	
Grid	50 mm	
For tubes	14 mm	17 mm
Polystyrene film thickness	0.60 mm	
Pack unit	32 pieces/box	26 pieces/box

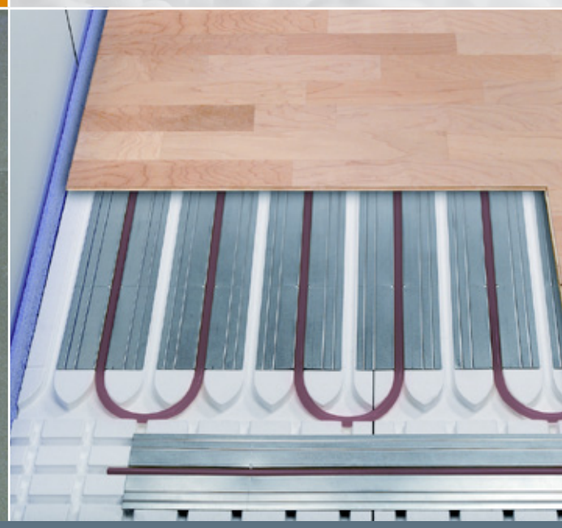
Piece enables cut COMBITOP boards to be securely joined

HIRSCH DRY CONSTRUCTION BOARD

∅ 14 mm / 16 mm tube diameter

HIRSCH Dry Construction Board 14

Floor construction with dry screed boards

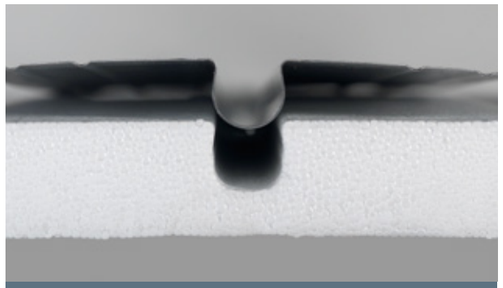


Floor construction with wooden boards

- Dry construction board without lamination
- Polystyrene rigid foam (EPS) thermal insulation board

TECHNICAL DATA

PROPERTIES	dia. 14 mm	dia. 16 mm
Board size (length x width)	1000 x 500 mm	1000 x 500 mm
Effective board size (length x width)	1000 x 500 mm	1000 x 500 mm
Effective area	0.5 m^2	0.5 m^2
Grid (tube spacing)	71.43 mm	83.33 mm
Nominal insulation thickness dL	25 mm	25 mm
Insulation thickness without tube holder	10 mm	8 mm
Total thickness with tube holder	25 mm	25 mm
Tube diameter	14 mm with heat conducting plates	16 mm with heat conducting plates
Designation to EN 13163	EPS-EN13163-T(2)-L(3)-W(3)-S(5)-P(10)-DS (N)5-DLT(1)5-BS250-CS(10)150	EPS-EN13163-T(2)-L(3)-W(3)-S(5)-P(10)-DS (N)5-DLT(1)5-BS250-CS(10)150
Application type to DIN 4108-10	DEO	DEO
Building material class to EN 13501-1	E	E
Density	> 30 kg/m^3	> 30 kg/m^3
Thermal conductivity (nominal value)	0.035 W/(mK)	0.035 W/(mK)
Thermal resistance	0.60 m^2K/W	0.60 m^2K/W
Heat distortion temperature	80 °C	80 °C
Max. live load	35 kPa (3500 kg/m^2)	35 kPa (3500 kg/m^2)
Pack unit per box	20 boards = 10 m^2	20 boards = 10 m^2
Box size (L x B x H)	1010 x 510 x 610 mm	1010 x 510 x 505 mm

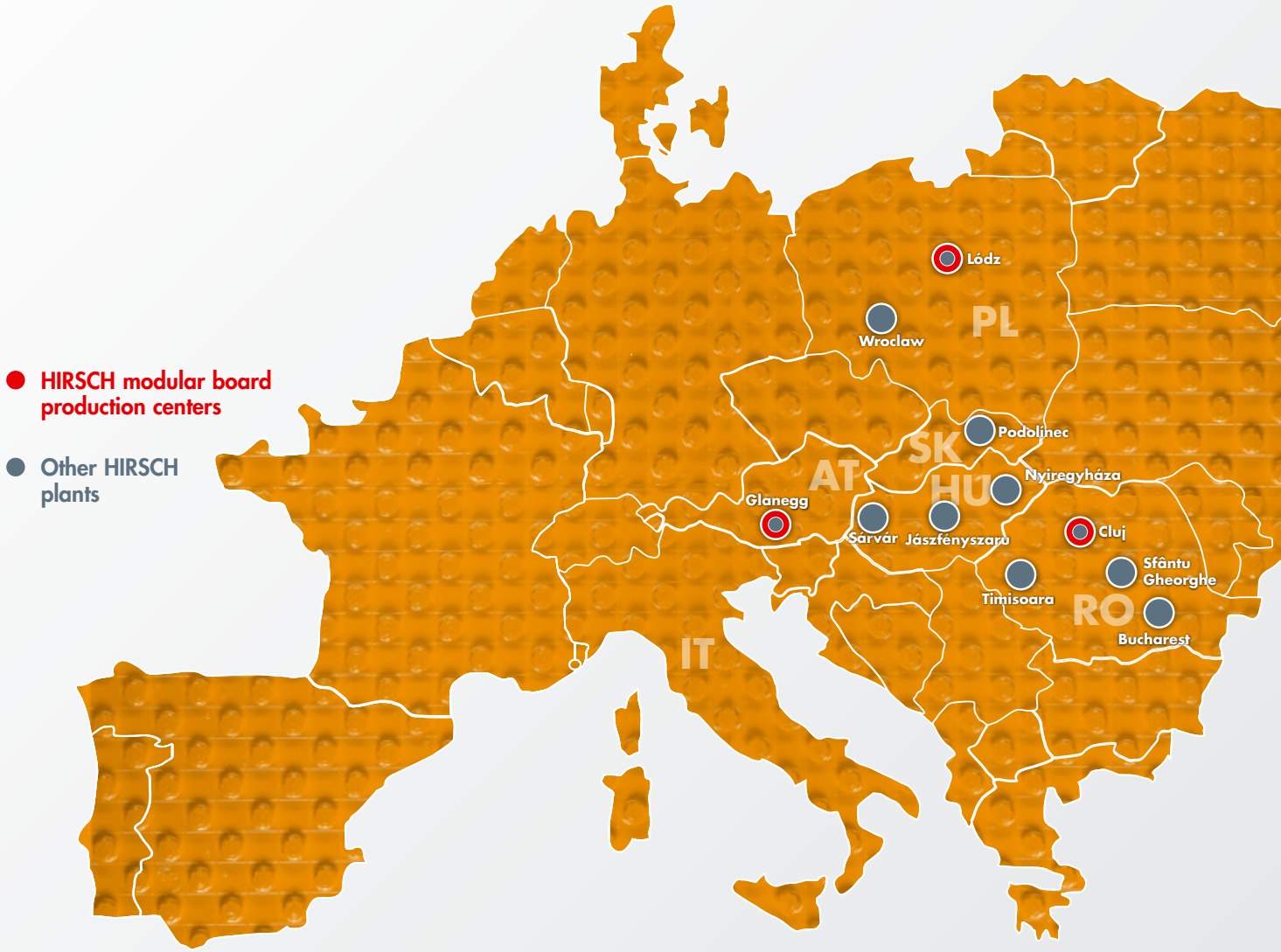


Tubing securely in place

- **Ideal as low-temperature underfloor heating for renovations** thanks to the extremely thin dry construction board and special heat conducting plate with omega section
- **Compatible system components** (heat conducting plates, etc.)
- **Tubing easy to install in a meander pattern**
- **Tubes (also PEX tubing) perfectly secure due to omega sections and recesses in the dry construction boards**
- **For wooden floors and dry screed boards**

HIRSCH Dry Construction Board 16

HIRSCH Porozell



THE Partner for System Users in Over 25 European Countries.

HIRSCH Porozell GmbH
Glanegg 58, 9555 Glanegg, Austria
Tel.: +43 4277/22 11
Fax: +43 4277/22 11-444
office.daemmstoffe@hirsch-gruppe.com

www.hirsch-gruppe.com