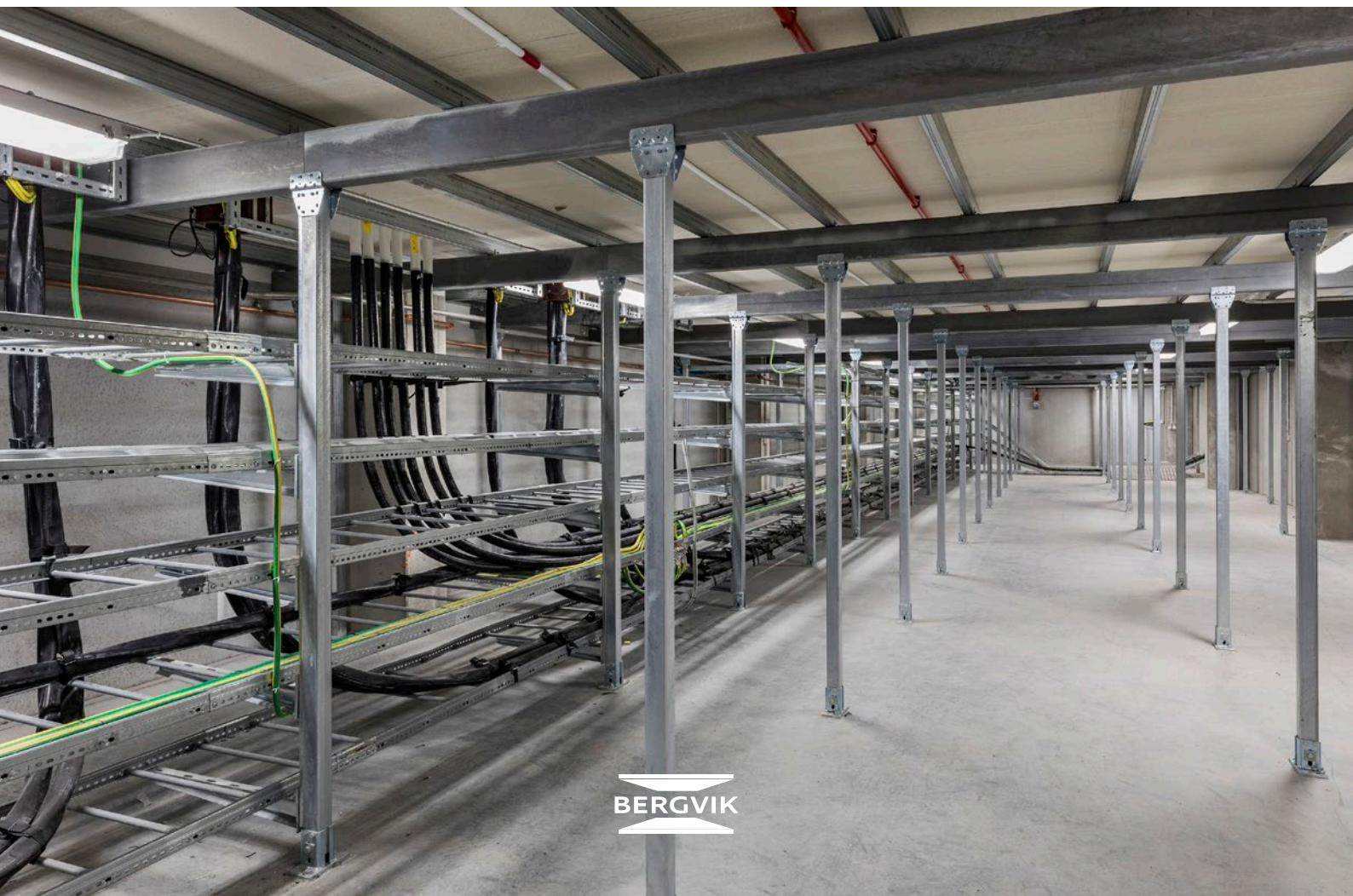


HIFLEX FLOOR

BERGVIK RAISED ACCESS FLOOR – HIFLEX FLOOR

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TECHNICAL SPECIFICATION

1. COMPONENT SPECIFICATION

Always remember; Floor heights over 2000 mm must have secure locked the panels due to rules for high altitude work before work can be performed safely.

1.1 Floor panel

Bergvik direct laminated wood core panel

Top Side Laminate

The laminate is a Direct Laminate (DL) process manufactured from phenolic and melamine resin impregnated papers, décor layer of M335 Granite and a high-wear type melamine glass overlay. The DL is wear resistant and easy to clean and maintain (vacuum cleaner or dry mop). Wear resistance: class AC3 according to EN 13329.



Electrical resistance: >50,000 ohms and an average value of < 50.000 Mohm when test specimens and installed floor coverings are tested surface to ground resistivity at a relative humidity (RH) of max 40%.

Colour Fastness: >6 in accordance with EN 13329.

Panel core

The Panel core is manufactured from a high density, moist resistant particleboard with a thickness of 38 mm. Two different panel types are available for HiFlex Floor.



Corner Lockdown Panel

As an alternative, standard panels in size 600x600

mm or 1200x600 mm with corner screws to secure the panels are available. Custom sizes are also available. The panels are fitted with edge trim.

Edge trim

The edge trim of the panel is a glued 0.6 mm thick ABS plastic and is applied so it covers the tapered edges, including the surface finish of the floor panel. During installation some panels needs to be cut, the edges of the cut panels must be covered with aluminium tape.

Bottom side laminate

The bottom of the panel is direct laminated with a white counter laminate, providing a fire class of at least Bfl-s1 according to EN 13501-01. Alternatively, direct laminated with an aluminium film, providing a flame spread index of 25 or less per ASTM E84/UL 723/NFPA.

Bergvik Calcium sulphate panel

Top Side

The top side can be covered with an HPL laminate, any type of vinyl or left as a bare panel for vinyl, epoxy coating or similar. HPL laminates and vinyl surfaces are glued onto the panel top, vinyl and epoxy coating can, with tongue and groove panels, be done on site after installation of the panels.

Wear resistance: Depending on type of covering.

Light Fastness: Depending on type of covering.

Electrical resistance: >50,000 ohms and an average value of < 50.000 Mohm, depending on the type of covering.

Panel core

The Panel core is manufactured from fibre reinforced gypsum. The panel standard sizes are 600x600 mm or 1200x600 mm with a thickness of 38 mm.

Tongue and Groove Panel

Comes as a standard size of 1200x600 mm with a tongue and groove profile for highest safety and security.

Corner Lockdown Panel

As an alternative, standard panels in size 600x600 mm or 1200x600 mm with corner screws to secure the panels are available. Custom sizes are also available. The panels are fitted with edge trim.

HIFLEX FLOOR

Edge trim

The edge trim of the panel is a glued 0.6 mm thick ABS plastic and is applied so it covers the tapered edges, including the surface finish of the floor panel. During installation some panels need to be cut, the edges of the cut panels must be covered with aluminium tape.

Bottom Side

On the bottom of the panel an aluminium film is glued on or left as a bare panel.

1.2 Steel substructure

The assembly consists of 160x80x5 mm primary beam and 80x40x1,5 mm secondary layer tube steel beam sections bolted together 90 degrees perpendicular to each other with angle clips and self-tapping screws. The desired load rating sets the spacing between the beams.

The under structure is self-supporting and independent from floor panel system and doesn't allow for any lateral movement. The hot dipped galvanized tubular steel sections provide a yield strength of minimum 370 MPa and a tensile strength of minimum 450 MPa in accordance with +CR2 classification.

The 160x80x5 mm main steel tube sections can span a maximum of 2400 mm without support, while supporting 10 kN/m² uniform distributed load and 3 kN concentrated load as a standard. Higher loads can be achieved by changing the internal spacing between the supporting members of the sub-structure. Integrated support for transformers or other equipment over 4000 Kg will be designed into the floor design using extra primary/secondary beams and pedestals.

1.3 Pedestal

Standard pedestal assembly

The standard pedestal assembly consists of a 60x60x3 mm steel tube column with head brackets and a foot with provisions for height adjustment. The base of the foot is rectangular with a 153 cm² bearing area.

The column is made to the height required to bring finished floor to elevations indicated, less 280 mm. The pedestal foot is bolted on the pedestal and the head plates are screwed securely to the column with self-tapping screws.

The pedestal foot attaches to the concrete floor concrete screws or anchors.

The pedestals have a vibration-proof levelling mechanism for making and holding fine adjustments in height over a range of +/- 25 mm. Pedestals are locked at the selected height, so deliberate action is required to change height setting thus preventing vibratory displacement.

2. PERFORMANCE SPECIFICATION

Concentrated Loads: Floor panels, including those with cutouts, can withstand a concentrated design load of minimum 300 kg, with a top-surface deflection under load and a permanent set not to exceed 3 mm and 0,2 mm, respectively.

2.1 Detailed panel specification

Panel Size (std.):	600x600 mm, +/-0,2 mm (1200x600 mm, +/-0,2 mm)
Panel Thickness:	38 mm, +/-0,1 mm
Panel Weight (std.):	10,1 Kg (600x600 mm)
Panel Weight (std.):	20,2 Kg (1200x600 mm)
Panel Weight (Calcium sul.):	20 Kg (600x600 mm)
Panel Weight (Calcium sul.):	40 Kg (1200x600 mm)

Properties	
Nominal Panel Size (inch x inch) (mm x mm)	24x24x1,5 (std.) 600x600x38 (Unless other specified)
Fireproof Rating Classification (wood/laminate)	EN 13501-01
Fire Rating	Bfl-s1
Fireproof Rating Classification (wood/aluminium)	ASTE E-84 and NFPA 266
Flame spread index	25 or less
Antistatic Floor Covering (surface to ground)	Between 50kOhm and 10M0hm
Bending strength (MOR)	17,5 N/mm ²
Elasticity (MOE)	2950 N/mm ²
Finished Floor height (FFH) standard	79"-177" (2000-4500mm)
Quality assurance	In accordance with ISO 9001 & 14001

TECHNICAL SPECIFICATION

2.2 Tolerances and Limits table

Description	Tolerance/Limit
Panel 600x600 mm (Std.)	
Length (sides)	+/- 0,2 mm
Diagonal difference	< 3 mm
Thickness	± 0.1 mm
Level of installed access floor	1.5 mm over 3 m
Level of installed access floor	3 mm over entire floor
Concentrated Load, temporary deflection of 2.8 mm	3 kN
Concentrated Load, permanent deflection of 0.2 mm	3 kN
Max allowed concentrated load	According to design, up to 30 kN
Uniformly Distributed Load per m ² (max.)	According to design, up to 80 kN/m ²

Electrical Characteristics:

The raised floor has an antistatic floor panel covering. The floor system shall be properly grounded to earth at the steel structure, using grounding lugs in two opposite corners.

3. AUXILIARY EQUIPMENT

3.1 Support Section

Additional support under for heavy equipment will be added during the design phase of the floor. If heavy equipment is added after installation Bergvik must review and approve the design changes before modifications are done to the floor. The contractor must install the floor system in accordance with the provided drawings, any changes must be approved by Bergvik.

3.2 Custom panels for equipment racks

Optional pre-cut panels are available to fit various equipment vendors relay racks, cabinets, power racks etc. in order to facilitate cabling and anchoring.

3.3 Air ventilation panels

Various air grille/ventilation panels with different open areas and sizes are available for Iso Floor. All air grille/ventilation panels shall be flush mounted with the standard floor panels.

3.4 Panel lifting device

With each room a double suction panel lifting and one wall mounted panel lifting bracket is delivered.

3.5 Mounting clamp

Bergvik's mounting clamp for cable ladders is an accessory customized for Iso Floor and HiFlex Floor pedestals. It is suited for the most common brackets in the market.

3.6 Railings

Optional railing including handrail, intermediate rails, posts, brackets, end caps, wall returns, wall and floor flanges, plates and anchor material.

3.7 Perimeter support (border fascia)

Optional perimeter support forms a transition between access flooring and adjoining floor coverings. The covering matches the floor panel finish, including a horizontal aluminium transition trim.

