

BEWI Sheet Pile Infill

Technical Datasheet

BEWI Sheet Pile Infills provide a quick and cost-effective solution to infilling the open voids in an exposed sheet pile wall.

The lightweight expanded polystyrene infills are cut to suit the pile shape and are available in a range of profiles and densities to meet project requirements.

Key Benefits

- Quick and easy installation
- Lightweight
- Easy to handle
- Provides a flat surface to aid the installation of any required membranes
- Aids the removal of sheet piles if required
- Reduces the volume of concrete pour
- Removes the need for backfilling in a confined space

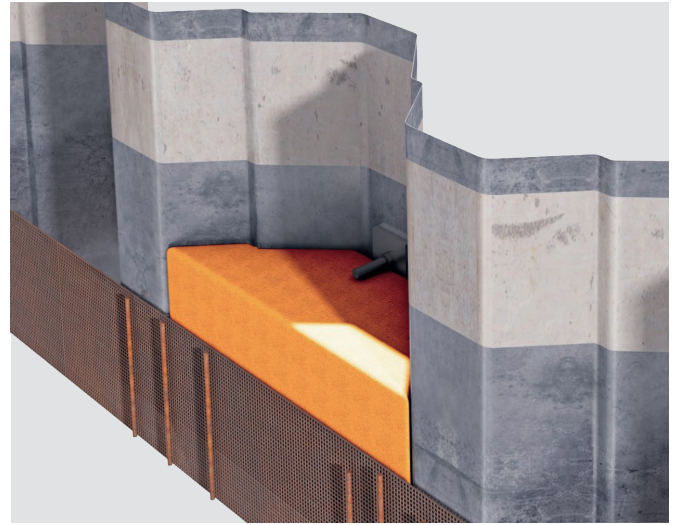
Infills the open pans to aid removal following construction of the associated concrete retaining wall.

There are no requirements for special PPE when installing or cutting the infill panels. Wall Formers are designed and cut in the factory and supplied to the construction site ready to use.

BEWI Sheet Pile infill is manufactured in accordance with BS EN ISO 14933 under a Quality Management System approved to BS EN ISO 9001 and Environmental Management System to ISO 14001.

Dimensions

| | |
|-----------|--|
| Sizes | Range of sizes, typically up to 1.2metre |
| Materials | Manufactured from Expanded Polystyrene (EPS) |
| Shape | Standard and bespoke profiles |



Installation

This information is provided as guidance only

The Sheet Pile Infills should be accurately placed within the Pile Wall starting from the bottom of the wall, on flat and blinded surface and secured in place, by using mechanical fixings or suitable adhesive. After the positioning and securing of further units a flat surface of the wall can be covered by a membrane prior to the concrete pour. Sections are up to 1200 mm long, which allows one- person handling of the product.

Health & Safety

The Panel Infill products are lightweight and can be manually handled in line with manual handling regulations.

Storage

The products are unaffected by UV light and water. They are however lightweight and should be weighted down or secured prior to installation.

For more information:

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Technical information

Product grades and physical properties

| Sheet Pile Infill Grade | 20 | 45 | 70 | 90 | 100 | 120 | 140 | 160 | 190 |
|---|----|-----|-----|-----|-----|-----|-----|-----|-----|
| Compressive Strength at 1% nominal compression (kN/m ²)* | 20 | 45 | 70 | 90 | 100 | 120 | 140 | 160 | 190 |
| Compressive Strength at 10% nominal compression (kN/m ²)* | 70 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 500 |
| Shear Strength (kN/m ²)# | 55 | 75 | 100 | 125 | 170 | 225 | 260 | 300 | 375 |

* in accordance with BS EN ISO 29469

in accordance with BS EN 12090

Maximum concrete depth at 1% nominal compression

| Sheet Pile Infill Grade | 20 | 45 | 70 | 90 | 100 | 120 | 140 | 160 | 190 |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Max depth [m] for concrete density 22 kN/m ³ | 0.9 | 2.0 | 3.1 | 4.1 | 4.5 | 5.4 | 6.4 | 7.4 | 8.7 |
| Max depth [m] for concrete density 25 kN/m ³ | 0.8 | 1.8 | 2.8 | 3.6 | 4.0 | 4.8 | 5.6 | 6.4 | 7.6 |
| Max depth [m] for concrete density 28 kN/m ³ | 0.7 | 1.6 | 2.5 | 3.2 | 3.6 | 4.3 | 5.0 | 5.8 | 6.9 |

If the construction includes a membrane positioned directly over the sheet pile infills, (waterproof, gas protection or other), it is recommended that the maximum concrete depths at 1% nominal compression are not exceeded.

Maximum concrete depth at 10% nominal compression

| Sheet Pile Infill Grade | 20 | 45 | 70 | 90 | 100 | 120 | 140 | 160 | 190 |
|---|-----|-----|-----|-----|------|------|------|------|------|
| Max depth [m] for concrete density 22 kN/m ³ | 3.2 | 4.5 | 6.8 | 9.1 | 11.4 | 13.6 | 15.9 | 18.2 | 22.7 |
| Max depth [m] for concrete density 25 kN/m ³ | 2.8 | 4.0 | 6.0 | 8.0 | 10.0 | 12.0 | 14.0 | 16.0 | 20.0 |
| Max depth [m] for concrete density 28 kN/m ³ | 2.5 | 3.6 | 5.4 | 7.1 | 8.9 | 10.7 | 12.5 | 14.3 | 17.9 |

For applications not requiring a membrane it is suggested that the maximum concrete depths at 10% nominal compression are not exceeded.

Concrete depth is calculated for concrete pour depth aligned to the wall.
For further guidance please contact our sales team.

Disclaimer: Every effort has been made to ensure the correctness of the information provided in this data sheet and is based on data and knowledge accurate at the time of production. It is designed for experienced professionals in the building and construction industry and does not offer a complete overview of industry practices. Therefore, this cannot guarantee the performance results, as usage and installation conditions are outside our control. If you have any questions regarding the suitability of the application, please contact us.

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