

HODY® 206

Composite steel floor deck

HODY® 206 profiled steel sheets are used to create deep composite floor decks with a thickness from 260 mm. With this floor system it is possible to realise long spans up to 5990 mm without using temporary propping.

Composite steel floor deck

The HODY® 206 trapezium sheets are used as formwork and limited base reinforcement in HODY® composite steel floor decks. Because of the deep profile a limited amount of concrete is required. The HODY® 206 trapezium sheets are always installed in combination with the HODY® 206 steel end diaphragm. These diaphragms are essential to ensure the structural integrity of the deep HODY® 206 profile during assembling and concrete pouring of the floor deck.

The HODY® 206 is a light weight composite steel floor deck that provides significant material savings for load-bearing structure and foundation in a building design.

Simple and fast installation

The HODY® 206 trapezium steel sheets have a low self-weight, are easy to install and can be walked on immediately. It is thus possible to quickly create a safe work floor. The end sides of the HODY® 206 sheets are closed with the steel end diaphragms. After the end diaphragms are fixed on the construction the HODY® 206 sheets can be installed easily. Thanks to a working width of 780 mm, the sheets are easy to use and allow floor areas to be quickly assembled.

The side laps of the HODY® 206 sheets are to be fixed with a self-drilling screw at 250 mm centres.

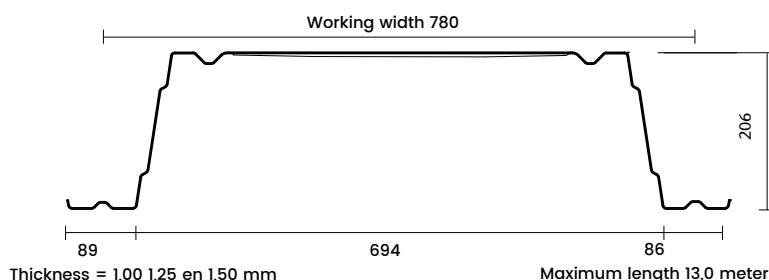


Pieter Zeemanweg 107
3316 GZ Dordrecht (NL)

+31 (0)78 617 44 00
reppel@reppel.nl
www.reppel.nl

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Profile and dimensions (mm)



You may always contact our technical advisors with any questions during design and implementation phase. They can offer extensive advice about using HODY® 206 composite steel floor decks in your project.

Specification service

Specification descriptions for HODY® composite steel floor decks are available.

Fire resistance

HODY® 206 composite steel floor decks offer fire resistance of at least 30 minutes. Fire resistance can be improved by using additional mesh reinforcement in the channels of the steel sheet.

Depending on the floor thickness, it is possible to realise fire resistance of 120 minutes.

Calculation

We can also provide calculations and reinforcement drawings for HODY® composite steel floor decks.

Advantages of HODY® 206 Trapezium steel sheets:

- Free span up to 9600 mm
- Simple and fast installation
- Efficient logistics to and on the construction site
- Large unpropped span up to 5990 mm
- Detailing possible
- Fire resistance \geq 30-120 minutes
- Aesthetic appeal
- Available with polyester coating
- supplied from stock

Section properties per metre width

NOMINAL THICKNESS (mm)	SELF WEIGHT		HEIGHT TO NEUTRAL AXIS	SECOND MOMENT OF AREA cm^4/m	STEEL-AREA (mm^2/m)	ULTIMATE MOMENT CAPACITY (kNm/m)
	(kg/m^2)	(kN/m^2)				FIELD
1,00	12,57	0,123	149 mm	742	1631	17,88
1,25	15,72	0,154	149 mm	951	2038	23,24
1,50	18,86	0,185	149 mm	1165	2446	27,87



Design table

To design the HODY® 206 composite steel floor decks you can make use of our design table. Please contact us for additional design advice, information about bridging larger spans and the use of the HODY® 206 trapezium steel sheets in floors with a visible underside.

Volume and weight HODY® 206 composite steel floor decks

FLOOR THICKNESS (mm)	CONCRETE VOLUME LITERS [m ²]	WEIGHT (EXCL. STEEL DECK) [kN/m ²]
260	88	2,11
270	98	2,53
280	108	2,59
290	118	2,83
300	128	3,07
310	138	3,31
320	148	3,55
330	158	3,79
340	168	4,03
350	178	4,27
360	188	4,51

Weight concrete 24 kN/m³

Service and advice

Besides the calculations and reinforcement drawing we can provide also floor lay outs, bill of materials and detail drawings of the HODY® 206 trapezium sheets and accessories.



HODY® 206 steel thickness 1,00 mm – Maximum span [m]

FLOOR THICKNESS (mm)	UNPROPPED (m)	SINGLE SPAN 						
		2,00	3,00	4,00	5,00	6,00	8,00	10,00
260	5,42	8,60	7,95	7,45	7,05	5,80	6,65	5,20
270	5,27	8,75	8,10	7,60	7,25	5,90	6,75	5,25
280	5,12	8,90	8,30	7,80	7,40	5,95	6,85	5,35
290	4,98	9,10	8,45	8,00	7,50	6,05	6,90	5,45
300	4,86	9,25	8,65	8,15	7,55	6,15	7,00	5,55
310	4,75	9,40	8,80	8,20	7,60	6,20	7,05	5,60
320	4,64	9,55	8,85	8,20	7,65	6,30	7,15	5,70
330	4,54	9,70	8,85	8,20	7,70	6,35	7,20	5,75
340	4,44	9,65	8,85	8,20	7,70	6,45	7,25	5,85
350	4,36	9,60	8,85	8,20	7,70	6,50	7,30	5,75
360	4,28	9,60	8,85	8,20	7,75	6,55	7,30	5,70

- m = span in metres
- maximum span based on deflection of 1/180 L
- permissible load in kN/m² incl. finishing and excl. self weight
- concrete quality C20/25
- floor thickness excludes reinforcements, coincidental restraints, recesses, line loads, concentrated loads etc. .
- with additional reinforcement longer spans can be made.



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