

Hilti HLD Light-Duty Anchor

Submission Folder

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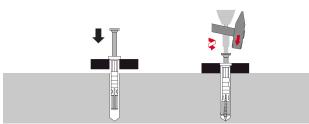
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Light-duty anchor HLD





These are abbreviated instructions which may vary according to the application.

BASE MATERIALS

- Concrete (uncracked)
- Drywall
- Masonry (hollow)

APPLICATIONS

- Fastening on low-strength materials with cavities for use with standard wood screws
- Anchoring in perforated brick or block, drywall, concrete

ADVANTAGES

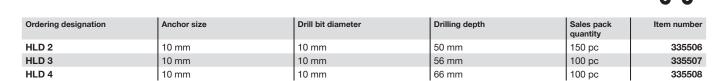
- The wings spring out and adapt to all materials
- Three convenient sizes for use in a variety of hollow base materials from 1/4" drywall to hollow block
- Ribs on the body help prevent the anchor spinning during installation

Technical data	
Anchor type	Plastic anchor
Head configuration	Flat head, Round head
Material composition	Polyamide PA 6
Material, corrosion	Plastic
In-service temperature – range	-40 - 80 °C
Installation direction	Wall

Recommended load (kN), safety factor(γ)=5

Model	Size	Working principle	HLD 2	HLD 3	HLD 4
Concrete at	Tensile Load, Nrec	- c ·	0.25	0.40	0.50
15N/mm ²	Shear Load, Vrec	0 -	0.25	0.40	0.50
Fibre reinforced	Tensile Load, Nrec	^	0.06	-	-
gypsum panel 12.5mm	Shear Load, Vrec	- A -	0.06	-	-
Fibre reinforced	Tensile Load, Nrec	- А	-	0.12	0.50
gypsum panel 2 x 12.5mm	Shear Load, Vrec	A	-	0.12	-
Hollow brick	Tensile Load, Nrec	. A / B	0.15	0.15	-
HOHOW Drick	Shear Load, Vrec	- A/B -	0.15	0.15	-

- 1) All the data applies to no edge distance, spacing and other influences 2) For detail design method, please refer to Fastening Technology Manual



Please visit Hilti website for the latest item numbers and related products



HLD Plastic anchors

Economical plastic anchor for drywall

Anchor version **Benefits** - Plastic undercut anchor - Simple setting HLD - Drywall application (M10)

Base material



Drywall

Basic loading data

All data in this section applies to:

- Correct setting (See setting instruction)
- No edge distance and spacing influence
- Base material as specified in the table
- Load data given in the tables is independent of load direction

Characteristic resistance

Anchor size			HLD 2	HLD 3	HLD 4	
	Anchoring principle a)					
Gypsum board Thickness 12,5mm	В	F _{Rk}	[kN]	0,4	0,4	0,4
Fibre reinforced gypsum board Thickness 12,5mm	А	F _{Rk}	[kN]	0,3	-	-
Fibre reinforced gypsum board Thickness 2x12,5mm	А	F _{Rk}	[kN]	-	0,6	-
Hollow clay brick	A/B	F _{Rk}	[kN]	0,75	0,75	
Concrete ≥ C16/20	С	F_{Rk}	[kN]	1,25	2	2,5
-\ 0						

a) See setting details



Design resistance

Anchor size				HLD 2	HLD 3	HLD 4
	Anchoring principle a)					
Gypsum board Thickness 12,5mm	В	F_{Rd}	[kN]	0,11	0,11	0,11
Fibre reinforced gypsum board Thickness 12,5mm	Α	F_{Rd}	[kN]	0,08	-	-
Fibre reinforced gypsum board Thickness 2x12,5mm	А	F_{Rd}	[kN]	-	0,17	-
Hollow clay brick	A/B	F _{Rd}	[kN]	0,21	0,21	-
Concrete ≥ C16/20	С	F_{Rd}	[kN]	0,35	0,56	0,70

a) See setting details

Recommended loads b)

Anchor size				HLD 2	HLD 3	HLD 4
	Anchoring principle a)					
Gypsum board Thickness 12,5mm	В	F_{Rec}	[kN]	0,08	0,08	0,08
Fibre reinforced gypsum board Thickness 12,5mm	А	F _{Rec}	[kN]	0,06	-	-
Fibre reinforced gypsum board Thickness 2x12,5mm	А	F _{Rec}	[kN]	-	0,12	-
Hollow clay brick	A/B	F _{Rec}	[kN]	0,15	0,15	
Concrete ≥ C16/20	С	F _{Rec}	[kN]	0,25	0,4	0,5

a) See setting details

Materials

Material quality

Part	Material
Sleeve	Polyamide PA 6

Setting information

Installation temperature

-10°C to +40°C

Service temperature range

Hilti HLD universal anchor may be applied in the temperature range given below.

Temperature range	Base material temperature	Max. long term base material temperature	Max. short term base material temperature
Temperature range	-40 °C to +80 °C	+50 °C	+80 °C

Max short term base material temperature

Short-term elevated base material temperatures are those that occur over brief intervals, e.g. as a result of diurnal cycling.

Max long term base material temperature

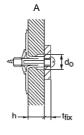
Long-term elevated base material temperatures are roughly constant over significant periods of time.

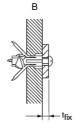
b) With overall global safety factor $\gamma = 5$ to the characteristic loads and a partial safety factor of $\gamma = 1.4$ to the design value.

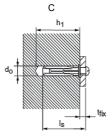


Setting details

Anchor size			HLD 2	HLD 3	HLD 4		
Nominal diameter of drill bit		d_{\circ}	[mm]		10		
Depth of drill hole	(only anchoring principle C)	h₁ ≥	[mm]	50	56	66	
Screw length	(anchoring principle A/B)	l _s	[mm]	33 + t _{fix}	40 + t _{fix}	49 + t _{fix}	
Screw length	(anchoring principle C)	l _s	[mm]	40 + t _{fix}	46 + t _{fix}	56 + t _{fix}	
Screw diameter	(anchoring principle A/B)	d_{s}	[mm]		4 - 5		
Screw diameter	(anchoring principle C)	d_{s}	[mm]	[mm] 5 - 6			
	(anchoring principle A)	h	[mm]	4 – 12	15 – 19	24 - 28	
Wall / panel thickness	(anchoring principle B)	h	[mm]	12 – 16	19 – 25	28 - 32	
	(anchoring principle C)	h		35	42	50	





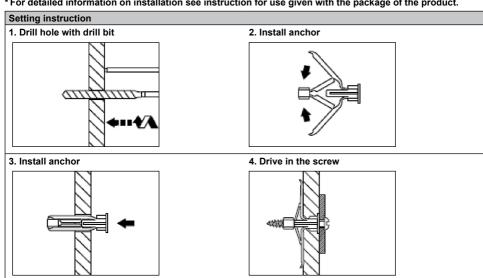


Installation equipment

Anchor size	HLD 2	HLD 3	HLD 4		
Rotary hammer	TE 2- TE16				
Other tools	Screwdriver				

Setting instruction

* For detailed information on installation see instruction for use given with the package of the product.





Attn. : To whom it may concern

Date : 26 September 2023 Ref. : 123/AM/DY/23

Subject : Country of Origin- Hilti HLD Light-Duty Anchor

Dear Sir / Madam,

Enclosed please find the information of Hilti HLD Light-Duty Anchor.

Brand Name : Hilti

Model Name : Hilti HLD Light-Duty Anchor

Manufacturer : Hilti Corporation

Address of Manufacturer: FL-9494, Principality of Liechtenstein.

Manufacturer Contact Person : Dennis Yeung

Supplier : Hilti (Hong Kong) Ltd

Address of Supplier : 701-704, 7/F, Tower A, Manulife Financial Centre,

223 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Supplier Contact Person : Dennis Yeung (+852 9723 4621)

Country of Origin : Germany

Should you have further questions, please do not hesitate to contact our Technical Representatives, Customer Service Hotline at 8228-8118, or email us at hksales@hilti.com.

Yours faithfully,

Dennis Yeung

Head of Product Leadership Strategy, F&P



Hilti HLD Toggle Anchor Job Reference

Year	Project Name	Customer Name	Project type
2022	KAI TAK SPORTS PARK	KEE SEE ENGINEERING CO LTD	Sport & Recreation
2022	YAU MA TEI- KWONG WAH HOSPITAL PHASE 1	FAR EAST FACADE (HONG KONG) LIMITED	Health
2022	SCL 1121 CROSS HARBOUR TUNNELS	KAVEN ENGINEERING	Transport
2022	1-2A HUMPHREYS AVENUE	HINGSKING BUILDING MATERIALS	Office
2022	JAT MIN CHUEN LOT 28, ELDERLY HOME	CHEVALIER (CONSTRUCTION) CO LTD	Health
2022	VICTORIA GARDEN - RENOVATION WORKS	HIN TAT ENGINEERING LIMITED	Residential
2022	EAST KOWLOON CULTURAL CENTRE	HO LEUNG ENGINEERING CO LTD	Community & Cultural
2022	YUEN LONG STATION YLTL 510	AS & T ELECTRICAL ENGINEERING CO.	Residential
2022	KAI TAK AREA 4B, SITE 1, NKIL 6576	EFFORT ENGINEERING LIMITED	Residential
2023	KAI TAK SPORTS PARK	SIMPLESTAR ENGINEERING LIMITED	Sport & Recreation
2023	UNITED CHRISTIAN HOSPITAL	CHEUNG HO ELECTRIC CO., LIMITED	Health
2023	EAST KOWLOON CULTURAL CENTRE	HO LEUNG ENGINEERING CO LTD	Community & Cultural
2023	KAI TAK AREA 4B, SITE 1, NKIL 6576	EFFORT ENGINEERING LIMITED	Residential
2023	JAT MIN CHUEN LOT 28, ELDERLY HOME	CHEVALIER (CONSTRUCTION) CO LTD	Health
2024	UNITED CHRISTIAN HOSPITAL	CHEUNG HO ELECTRIC CO., LIMITED	Health
2024	13 HOK YUEN ST	POWER ENGINEERING COMPANY	Office
2024	KAI TAK SPORTS PARK	HO LEUNG ENGINEERING CO LTD	Sport & Recreation
2024	TMCLK C4 NORTH CONNECT TUNNEL BLDGS	SIMPLESTAR ENGINEERING LIMITED	Office
2024	71-75 BEDFORD RD	FOREVER HARVEST METAL	Industrial
2024	TUEN MUN AREA 29 WEST - PUBLIC HOUSING	AGGRESSIVE CONSTRUCTION COMPANY	Residential