R-4ALL UNIVERSAL PLUG WITH SCREW

High performance nylon plug with screw for all types of substrates

FEATURES AND BENEFITS

Expanding section designed to collapse in hollow materials and provide positive grip behind surfaces.

Solid head design provides strength whilst plug is installed.

Anti-rotational lugs promote grip in wide range of substrates including soft masonry materials.

Unique internal design provides positive grip for screws.

The unique four-way expansion method of the plug allows application in any type of substrate.

Rib detail at plug head provides added grip.

SUBSTRATES

- Concrete C20/25-C50/60
- Solid brick
- Solid sand-lime brick
- Hollow brick
- Vertically-perforated clay block
- Aerated concrete
- Plasterboard
- Hollow lightweight concrete block



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4ALL Expansion Plug for Demanding Applications.
The modern design ensures secure attachment in any material – from concrete to drywall. Anti-rotation wings prevent spinning in the hole, while specially shaped ribs enhance anchoring strength. Installation is quick and easy, delivering a secure and safe result. The perfect choice for anyone who values strength, reliability, and ease of use.

APPLICATIONS

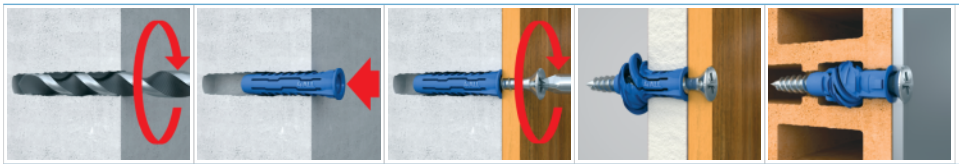
- Bathroom accessories
- Cabinets, brackets and wall brackets
- Electrical Installations
- Letterboxes
- Lighting
- TV brackets





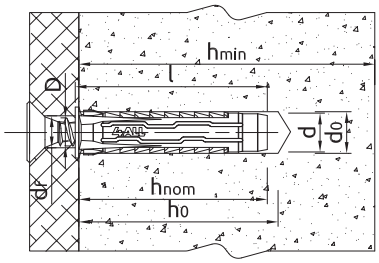
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INSTALLATION GUIDE

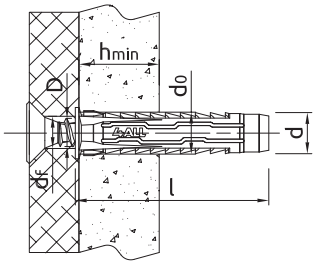


1. Drill a hole of required diameter.
2. Insert 4ALL plug into hole and tap home.
3. Insert screw of required diameter into plug through fixture and tighten.

INSTALLATION DATA



Solid substrates



Hollow substrates

Size			Ø5	Ø6	Ø6L	Ø8	Ø8L	Ø10
Fixing diameter	d	[mm]	5	6	6	8	8	10
Hole diameter in substrate	d_0	[mm]	5	6	6	8	8	10
Min. hole depth in substrate	h_0	[mm]	35	40	60	50	75	60
Embedment depth [1]	h_{nom}	[mm]	25	30	50	40	65	50
Embedment depth (1x12,5mm) [2]	h_{nom}	[mm]	12,5	12,5	-	12,5	-	12,5
Embedment depth (2x12,5mm) [2]	h_{nom}	[mm]	25	25	25	25	25	25
Min. substrate thickness [1]	h_{min}	[mm]	80	80	80	80	98	80
Min. spacing in the case of concrete substrate	s_{min}	[mm]	50	60	100	80	130	100
Min. spacing for other substrates	s_{min}	[mm]	75	90	150	120	195	150
Min. edge distance	c_{min}	[mm]	50	60	100	80	130	100

[1] Does not apply to plasterboard

[2] Through-hole assembly

BASIC PERFORMANCE DATA

Performance data for single fixing without influence of edge distance and spacing

Size			Ø5	Ø6	Ø6L	Ø8	Ø8L	Ø10
Effective embedment depth	h_{ef}	[mm]	25	30	50	40	65	50
CHARACTERISTIC RESISTANCE								
TENSION LOAD								
Concrete C20/25 - C50/60	N_{Rk}	[kN]	0,10	0,20	0,30	0,50	0,50	0,50
Solid ceramic brick min. 20MPa	N_{Rk}	[kN]	-	0,15	0,60	0,75	0,50	0,90
Hollow ceramic brick min.15MPa, web thickness 14mm	N_{Rk}	[kN]	0,20	0,60	0,90	0,90	0,60	1,20
Hollow ceramic brick min.15MPa, web thickness 12mm	N_{Rk}	[kN]	0,20	0,30	0,50	0,30	0,40	0,60
Porous ceramic hollow brick min. 15MPa	N_{Rk}	[kN]	-	-	0,50	-	0,90	-
Silicate hollow brick min. 20MPa	N_{Rk}	[kN]	0,15	0,30	-	0,50	-	0,50
Hollow silicate brick min. 15MPa	N_{Rk}	[kN]	0,50	0,60	-	0,75	-	0,75
Autoclaved aerated concrete 6MPa	N_{Rk}	[kN]	-	-	0,90		0,90	-
Plasterboard min. 12,5mm [1]	N_{Rk}	[kN]	0,20	0,30	0,60	0,50	0,50	0,60
Plasterboard min. 2x12,5mm [2]	N_{Rk}	[kN]	0,11	0,12	-	0,15	-	0,26
Plasterboard min. 2x12,5mm [2]	N_{Rk}	[kN]	-	-	0,60	-	0,75	-
TeknoAmerblok brick min. 12,5MPa	N_{Rk}	[kN]	0,20	0,60	0,60	0,40	0,60	0,90
SHEAR LOAD								
Concrete C20/25 - C50/60	V_{Rk}	[kN]	0,10	0,20	0,30	0,50	0,50	0,50
Solid ceramic brick min. 20MPa	V_{Rk}	[kN]	-	0,15	0,60	0,75	0,50	0,90

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Size			Ø5	Ø6	Ø6L	Ø8	Ø8L	Ø10
Solid silicate brick min. 20MPa	V_{Rk}	[kN]	0,20	0,60	0,90	0,90	0,60	1,20
Hollow ceramic brick min.15MPa, web thickness 14mm	V_{Rk}	[kN]	0,20	0,30	0,50	0,30	0,40	0,60
Hollow ceramic brick min.15MPa, web thickness 12mm	V_{Rk}	[kN]	-	-	0,50	-	0,90	-
Porous ceramic hollow brick min. 15MPa	V_{Rk}	[kN]	0,15	0,30	-	0,50	-	0,50
Silicate hollow brick min. 20MPa	V_{Rk}	[kN]	0,50	0,60	-	0,75	-	0,75
Hollow silicate brick min. 15MPa	V_{Rk}	[kN]	-	-	0,90		0,90	-
Autoclaved aerated concrete 6MPa	V_{Rk}	[kN]	0,20	0,30	0,60	0,50	0,50	0,60
Plasterboard min. 12,5mm [1]	V_{Rk}	[kN]	0,11	0,12	-	0,15	-	0,26
Plasterboard min. 2x12,5mm [2]	V_{Rk}	[kN]	-	-	0,60	-	0,75	-
TeknoAmerblok brick min. 12,5MPa	V_{Rk}	[kN]	0,20	0,60	0,60	0,40	0,60	0,90
DESIGN RESISTANCE								
TENSION LOAD								
Concrete C20/25 - C50/60	N_{Rd}	[kN]	0,06	0,11	0,17	0,28	0,28	0,28
Solid ceramic brick min. 20MPa	N_{Rd}	[kN]	-	0,06	0,24	0,30	0,20	0,36
Solid silicate brick min. 20MPa	N_{Rd}	[kN]	0,08	0,24	0,36	0,36	0,24	0,48
Hollow ceramic brick min.15MPa, web thickness 14mm	N_{Rd}	[kN]	0,08	0,12	0,20	0,12	0,16	0,24
Hollow ceramic brick min.15MPa, web thickness 12mm	N_{Rd}	[kN]	-	-	0,20	-	0,36	-
Porous ceramic hollow brick min. 15MPa	N_{Rd}	[kN]	0,06	0,12	-	0,20	-	0,20
Silicate hollow brick min. 20MPa	N_{Rd}	[kN]	0,20	0,24	-	0,30	-	0,30
Hollow silicate brick min. 15MPa	N_{Rd}	[kN]	-	-	0,36	0,00	0,36	-
Autoclaved aerated concrete 6MPa	N_{Rd}	[kN]	0,10	0,15	0,30	0,25	0,25	0,30
Plasterboard min. 12,5mm [1]	N_{Rd}	[kN]	0,06	0,06	-	0,08	-	0,13
Plasterboard min. 2x12,5mm [2]	N_{Rd}	[kN]	-	-	0,30	-	0,38	-
TeknoAmerblok brick min. 12,5MPa	N_{Rd}	[kN]	0,08	0,24	0,24	0,16	0,24	0,36
SHEAR LOAD								
Concrete C20/25 - C50/60	V_{Rd}	[kN]	0,08	0,16	0,24	0,40	0,40	0,40
Solid ceramic brick min. 20MPa	V_{Rd}	[kN]	-	0,12	0,48	0,60	0,40	0,72
Solid silicate brick min. 20MPa	V_{Rd}	[kN]	0,16	0,48	0,72	0,72	0,48	0,96
Hollow ceramic brick min.15MPa, web thickness 14mm	V_{Rd}	[kN]	0,16	0,24	0,40	0,24	0,32	0,48
Hollow ceramic brick min.15MPa, web thickness 12mm	V_{Rd}	[kN]	-	-	0,40	-	0,72	-
Porous ceramic hollow brick min. 15MPa	V_{Rd}	[kN]	0,12	0,24	-	0,40	-	0,40
Silicate hollow brick min. 20MPa	V_{Rd}	[kN]	0,40	0,48	-	0,60	-	0,60
Hollow silicate brick min. 15MPa	V_{Rd}	[kN]	-	-	0,72	0,00	0,72	-
Autoclaved aerated concrete 6MPa	V_{Rd}	[kN]	0,16	0,24	0,48	0,40	0,40	0,48
Plasterboard min. 12,5mm [1]	V_{Rd}	[kN]	0,09	0,10	-	0,12	-	0,21
Plasterboard min. 2x12,5mm [2]	V_{Rd}	[kN]	-	-	0,48	-	0,60	-
TeknoAmerblok brick min. 12,5MPa	V_{Rd}	[kN]	0,16	0,48	0,48	0,32	0,48	0,72
RECOMMENDED LOAD								
TENSION LOAD								
Concrete C20/25 - C50/60	N_{rec}	[kN]	0,04	0,08	0,12	0,20	0,20	0,20
Solid ceramic brick min. 20MPa	N_{rec}	[kN]	-	0,04	0,17	0,21	0,14	0,26
Solid silicate brick min. 20MPa	N_{rec}	[kN]	0,06	0,17	0,26	0,26	0,17	0,34
Hollow ceramic brick min.15MPa, web thickness 14mm	N_{rec}	[kN]	0,06	0,09	0,14	0,09	0,11	0,17
Hollow ceramic brick min.15MPa, web thickness 12mm	N_{rec}	[kN]	-	-	0,14	-	0,26	-
Porous ceramic hollow brick min. 15MPa	N_{rec}	[kN]	0,04	0,09	-	0,14	-	0,14
Silicate hollow brick min. 20MPa	N_{rec}	[kN]	0,14	0,17	-	0,21	-	0,21
Hollow silicate brick min. 15MPa	N_{rec}	[kN]	-	-	0,26	0,00	0,26	-
Autoclaved aerated concrete 6MPa	N_{rec}	[kN]	0,07	0,11	0,21	0,18	0,18	0,21
Plasterboard min. 12,5mm [1]	N_{rec}	[kN]	0,04	0,04	-	0,05	-	0,09
Plasterboard min. 2x12,5mm [2]	N_{rec}	[kN]	-	-	0,21	-	0,27	-
TeknoAmerblok brick min. 12,5MPa	N_{rec}	[kN]	0,06	0,17	0,17	0,11	0,17	0,26
SHEAR LOAD								
Concrete C20/25 - C50/60	V_{rec}	[kN]	0,06	0,11	0,17	0,29	0,29	0,29
Solid ceramic brick min. 20MPa	V_{rec}	[kN]	-	0,09	0,34	0,43	0,29	0,51
Solid silicate brick min. 20MPa	V_{rec}	[kN]	0,11	0,34	0,51	0,51	0,34	0,69
Hollow ceramic brick min.15MPa, web thickness 14mm	V_{rec}	[kN]	0,11	0,17	0,29	0,17	0,23	0,34
Hollow ceramic brick min.15MPa, web thickness 12mm	V_{rec}	[kN]	-	-	0,29	-	0,51	-
Porous ceramic hollow brick min. 15MPa	V_{rec}	[kN]	0,09	0,17	-	0,29	-	0,29
Silicate hollow brick min. 20MPa	V_{rec}	[kN]	0,29	0,34	-	0,43	-	0,43
Hollow silicate brick min. 15MPa	V_{rec}	[kN]	-	-	0,51	0,00	0,51	-
Autoclaved aerated concrete 6MPa	V_{rec}	[kN]	0,11	0,17	0,34	0,29	0,29	0,34
Plasterboard min. 12,5mm [1]	V_{rec}	[kN]	0,06	0,07	-	0,09	-	0,15

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Plasterboard min. 2x12,5mm [2]	V_{rec}	[kN]	-	-	0,34	-	0,43	-
TeknoAmerblok brick min. 12,5MPa	V_{rec}	[kN]	0,11	0,34	0,34	0,23	0,34	0,51

[1] Effective depth h_{ef}=12,5mm

[2] Effective depth h_{ef}=25mm

LOGISTICAL DATA

SKU	Base-sales unit	Unit pack	Bulk pack	Pallet	Single Package - Gross Weight	Bulk Package - Gross Weight	Palette - Gross Weight	Barcode
4ALL-05+3530	pcs.	50.0	1600.0	76800.0	0.1	3.2	154.3	5906675028934
4ALL-06+4540	pcs.	50.0	1600.0	76800.0	0.2	6.3	303.3	5906675028941
4ALL-06050+4560	pcs.	50.0	1600.0	38400.0	0.3	9.5	227.6	5906675383491
4ALL-08+5060	pcs.	50.0	800.0	19200.0	0.3	5.9	141.6	5906675028958
4ALL-08065+5080	pcs.	50.0	800.0	19200.0	0.5	8.0	191.9	5906675383507
4ALL-10+6060	pcs.	25.0	400.0	19200.0	0.3	4.7	227.3	5906675028965
R-BIOS-4ALL05+/50	pack	1.0	12.0	1152.0	0.0	0.0	0.0	5906675504759
R-BIOS-4ALL06+/28	pack	1.0	12.0	1152.0	0.0	0.0	0.0	5906675504766
R-BIOS-4ALL06L+/12	pack	1.0	12.0	1152.0	0.0	0.0	0.0	5906675504773
R-BIOS-4ALL08+/12	pack	1.0	12.0	1152.0	0.0	0.0	0.0	5906675504780
R-BIOS-4ALL08L+/8	pack	1.0	12.0	1152.0	0.0	0.0	0.0	5906675504797
R-BIOS-4ALL10+/8	pack	1.0	12.0	1152.0	0.0	0.0	0.0	5906675504803
R-C1-4ALL06+	pack	6.0	6.0	144.0	9.9	9.9	237.4	5906675435220
R-C1-4ALL08+	pack	6.0	6.0	144.0	4.2	4.2	100.2	5906675435237
R-S1-4ALL-05+/20	pack	5.0	30.0	3840.0	0.2	1.3	169.2	5906675064208
R-S1-4ALL-06+/14	pack	5.0	30.0	3840.0	0.3	1.8	229.8	5906675064222
R-S1-4ALL-08+/10	pack	5.0	25.0	3200.0	0.3	1.9	242.9	5906675064246
R-S1-4ALL-10+/10	pack	5.0	25.0	3200.0	0.5	2.8	358.3	5906675093253
R-S9-4ALL-05+/20	pack	5.0	30.0	2640.0	0.2	1.2	103.5	5906675204369
R-S9-4ALL-05+/40	pack	5.0	25.0	2200.0	0.4	1.8	157.1	5906675204376
R-S9-4ALL-06+/14	pack	5.0	30.0	2640.0	0.1	0.3	52.8	5906675204437
R-S9-4ALL-06+/30	pack	5.0	25.0	2200.0	0.4	1.8	154.0	5906675204468
R-S9-4ALL-06L+/8	pack	5.0	25.0	2200.0	0.2	1.4	121.3	5906675563534
R-S9-4ALL-08+/10	pack	5.0	25.0	2200.0	0.3	1.3	114.4	5906675204543
R-S9-4ALL-08L+/6	pack	5.0	25.0	2200.0	0.0	0.0	0.0	5906675563701
R-S9-4ALL-10+/8	pack	5.0	25.0	2200.0	0.3	1.5	132.0	5906675204611

RELATED PRODUCTS

ANCHORING

Cordless
RawlHammer 18V



Cordless RawlDriver 18V
R-PDD18



Bit holder with 2 magnets
RT-BIT-ADAP/2M



Multipourpose drill bits
RT-UNI



Drill bits Rebardrill SDS plus
RT-SDSR



CLEANING

Blow Pump
R-BLOWPUMP

