

Drop-in anchors DI



X ANCHORS



SYMPAFIX
serious fixings

DROP-IN ANCHORS

PROPERTIES

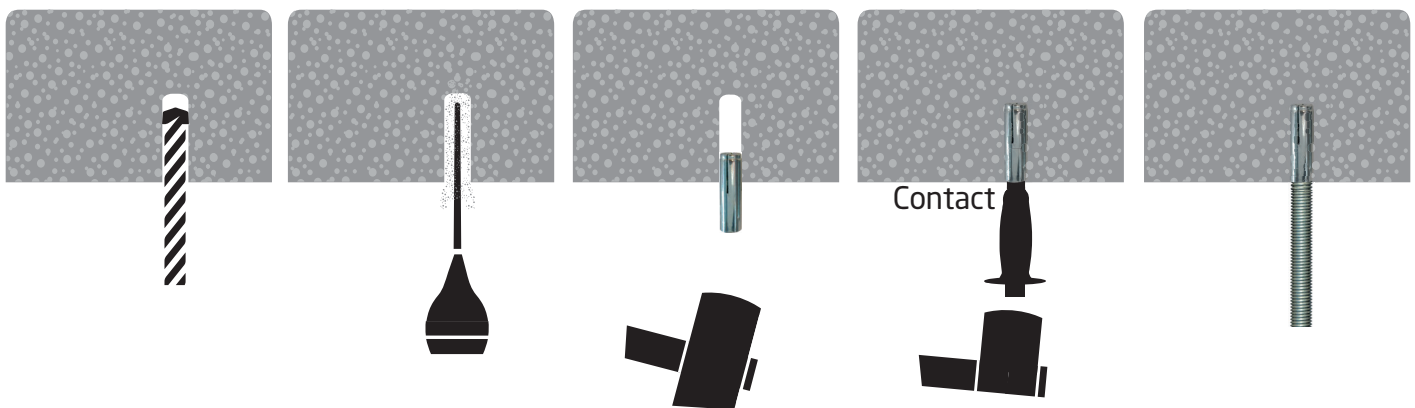
- **ETA part 6** multipoint approval for redundant fixings in cracked and non-cracked concrete
- Metric internal thread, **suitable for bolts and threaded rods**
- Available **with and without collar**
- Drop-in anchor with collar (DI-LIP-PLUS) **prevents loss of the anchor** in hollow base material, and **simultaneously aligns** rods of identical lengths
- Drop-in anchor without collar (DI-PLUS) enables the user to **invisibly plug** the partially countersunk anchors when dealing with temporary fixings
- Suitable for **cracked and non-cracked concrete C12/15 up to C50/60** as well as base materials with sufficiently high compression strengths

APPROVALS AND TEST REPORTS

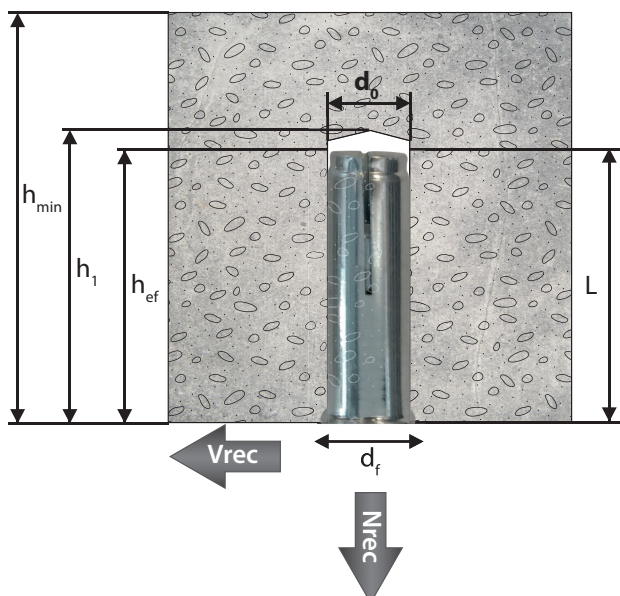
0679-CPR-1037
ETA-14/0481
ETAG 001
Part 6



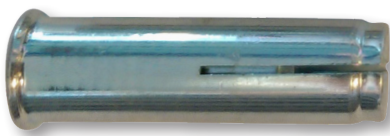
INSTALLATION INSTRUCTIONS



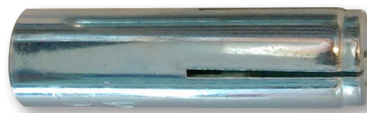
TECHNICAL DATA



L:	anchor length
t_{fix}:	maximum fixture thickness
d_r:	diameter through hole fixture
d_o:	drill hole diameter
h_{ef}:	embedment depth
h₁:	minimum drill hole depth
h_{min}:	minimum member thickness
N_{rec}:	maximum load in tension (1kN = ±100kg)
V_{rec}:	maximum load in shear (1kN = ±100kg)



70770



70782

Drop-in anchors DI-LIP-PLUS (zinc plated with collar) and DI-PLUS (zinc plated)

Type	Art. Nr.	 QTY	 QTY	 mm	 mm	 M
DI-LIP-PLUS M6*	70766	100	1600	8	25	M6
DI-LIP-PLUS M8	70768	100	800	10	30	M8
DI-LIP-PLUS M10	70770	100	800	12	40	M10
DI-LIP-PLUS M12	70772	100	400	16	50	M12
DI-LIP-PLUS M16*	70774	25	100	20	65	M16
DI-LIP-PLUS M20*	70776	25	100	25	80	M20
DI-PLUS M6*	70778	100	1600	8	25	M6
DI-PLUS M8	70780	100	800	10	30	M8
DI-PLUS M10	70782	100	800	12	40	M10
DI-PLUS M12	70784	100	400	16	50	M12
DI-PLUS M16*	70786	25	100	20	65	M16
DI-PLUS M20*	70788	25	100	25	80	M20

* Size not part of the approval



70818

Drop-in setting tools DI-ST-SG (with safety grip)

Type	Art. Nr.	 QTY	 QTY	 M
DI-ST-SG M6	70814	1		M6
DI-ST-SG M8	70816	1		M8
DI-ST-SG M10	70818	1		M10
DI-ST-SG M12	70820	1		M12
DI-ST-SG M16	70822	1		M16
DI-ST-SG M20	70824	1		M20

DROP-IN ANCHORS

TECHNICAL DATA

Installation data

$\frac{N_{rk}}{\gamma_M \cdot \gamma_F} = N_{rec}$	Art.nr	Size indication	Anchor length (mm)	Diameter through hole fixture d _r (mm)	Drill hole diameter d _o (mm)	Embedment depth h _{ef} (mm)	Minimum drill hole depth h ₁ (mm)	Installation torque (Nm)	Minimum thread length (mm)	Minimum member thickness (mm)	Minimum-HOH distance (mm)	Minimum edge distance (mm)
DI-LIP-PLUS M6*	70766	M6x25	25	7	8	25	26	4	6	80	200	150
DI-LIP-PLUS M8	70768	M8x30	30	9	10	30	32	8	8	80	200	150
DI-LIP-PLUS M10	70770	M10x40	40	12	12	40	42	15	10	80	200	150
DI-LIP-PLUS M12	70772	M12x50	50	14	16	50	53	35	12	80	200	150
DI-LIP-PLUS M16*	70774	M16x65	65	18	20	65	68	60	15	160	200	200
DI-LIP-PLUS M20*	70776	M20x80	80	22	25	80	85	120	21	200	200	200
DI-PLUS M6*	70778	M6x25	25	7	8	25	26	4	6	80	200	150
DI-PLUS M8	70780	M8x30	30	9	10	30	32	8	8	80	200	150
DI-PLUS M10	70782	M10x40	40	12	12	40	42	15	10	80	200	150
DI-PLUS M12	70784	M12x50	50	14	16	50	53	35	12	80	200	150
DI-PLUS M16*	70786	M16x65	65	18	20	65	68	60	15	160	200	200
DI-PLUS M20	70788	M20x80	80	22	25	80	85	120	21	200	200	200

Load values in concrete (kN)

Art.nr	Non-cracked concrete tension load N _{rec} (kN)	Cracked concrete tension load N _{rec} (kN)	Shear load V _{rec} (kN)
DI-LIP-PLUS M6*	0,7	0,7	0,7
DI-LIP-PLUS M8	1,9	1,9	1,9
DI-LIP-PLUS M10	1,4	1,4	1,4
DI-LIP-PLUS M12	2,4	2,4	2,4
DI-LIP-PLUS M16*	3,0	3,0	3,0
DI-LIP-PLUS M20*	3,6	3,6	3,6
DI-PLUS M6*	0,7	0,7	0,7
DI-PLUS M8	1,9	1,9	1,9
DI-PLUS M10	1,4	1,4	1,4
DI-PLUS M12	2,4	2,4	2,4
DI-PLUS M16*	3,0	3,0	3,0
DI-PLUS M20*	3,6	3,6	3,6

Characteristic load values in case of fire, without bending (kN)

Art.nr	30 minutes	60 minutes	90 minutes	120 minutes
DI-LIP-PLUS M6*	0,13	0,12	0,08	0,07
DI-LIP-PLUS M8	0,26	0,24	0,19	0,13
DI-LIP-PLUS M10	0,62	0,54	0,41	0,33
DI-LIP-PLUS M12	1,21	0,90	0,79	0,60
DI-LIP-PLUS M16*	2,05	1,53	1,34	1,02
DI-LIP-PLUS M20*	2,46	1,84	1,60	1,22
DI-PLUS M6*	0,13	0,12	0,08	0,07
DI-PLUS M8	0,26	0,24	0,19	0,13
DI-PLUS M10	0,62	0,54	0,41	0,33
DI-PLUS M12	1,21	0,90	0,79	0,60
DI-PLUS M16*	2,05	1,53	1,34	1,02
DI-PLUS M20*	2,46	1,84	1,60	1,22

* Size not part of ETA approval

Your Sympafix Dealer

DI-LIP-PLUS



DI-PLUS

