INSTALLATION PARAMETERS AND CAPACITIES

SORMAT DROP-IN ANCHOR **LA+ / LAL+** (lip) ZINC PLATED STEEL

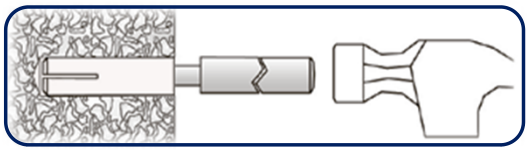
TYPE	FIXING DETAILS															RECOMMENDED LOADS[1] FOR SINGLE ANCHORS AWAY FROM EDGES IN NON-CRACKED CONCRETE [2]								
	ANCHOR & FIXTURE DETAILS				INSTALLATION DATA																		
	Size	L	d_f	f	d_0	h_1	h_{nom}	h_{ef}	h_{min}	$s_{cr,N}$	s_{min}	$c_{cr,N}$	c_{min}	SETTING TOOL	SIZE	CONCRETE	TENSION	SHEAR V_{Rec} [3]			BENDING M_{Rec} [3]		
															M	Grade	N_{rec}	4.6	5.6	8.8	4.6	5.6	8.8
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Mandatory	mm	Mpa	kN	kN	kN	kN	Nm	Nm	Nm
LA+ 6 / LAL+ 6	M6	25	7	11	8	27	25	25	100	80	70	40	105	LT+ 6 (PRO)	M6	C20/25	2,1	1,7	2,2	2,2	2,6	3,3	7,0
																C25/30	2,3	1,7	2,2	2,2	2,6	3,3	7,0
																C30/37	2,6	1,7	2,2	2,2	2,6	3,3	7,0
LA+ 8 / LAL+ 8	M8	30	9	13	10	32	30	30	100	90	105	45	105	LT+ 8 (PRO)	M8	C20/25	3,6	3,1	4,0	4,0	6,4	8,0	17,1
																C25/30	3,9	3,1	4,2	4,2	6,4	8,0	17,1
																C30/37	4,4	3,1	4,2	4,2	6,4	8,0	17,1
LA+ 10 / LAL+ 10	M10	40	12	16	12	43	40	40	100	120	105	60	140	LT+ 10 (PRO)	M10	C20/25	4,8	4,5	4,5	4,5	12,8	16,0	34,2
																C25/30	5,0	4,5	4,5	4,5	12,8	16,0	34,2
																C30/37	5,3	4,5	4,5	4,5	12,8	16,0	34,2
LA+ 12 / LAL+ 12	M12	50	14	23	15	54	50	50	120	150	125	75	175	LT+ 12 (PRO)	M12	C20/25	6,3	7,3	7,3	7,3	22,5	28,1	59,9
																C25/30	7,0	7,3	7,3	7,3	22,5	28,1	59,9
																C30/37	7,7	7,3	7,3	7,3	22,5	28,1	59,9
LA+ 16 / LAL+ 16	M16	65	18	32	20	70	65	65	160	195	180	97,5	230	LT+ 16 (PRO)	M16	C20/25	10,5	12,2	12,2	12,2	57,1	71,3	152,2
																C25/30	11,5	12,2	12,2	12,2	57,1	71,3	152,2
																C30/37	12,8	12,2	12,2	12,2	57,1	71,3	152,2
LA 20 / LAL 20	M20	80	22	33	25	84	80	80	120	240	240	120	280	LT 20	M20	C20/25	11,9	17,2	17,2	17,2	111,3	139,1	296,7
																C25/30	13,0	18,8	18,8	18,8	111,3	139,1	296,7
																C30/37	14,5	20,9	20,9	20,9	111,3	139,1	296,7

[1] Load figures apply for a rebar spacing s ≥ 15 cm or alternatively for a rebar spacing s ≥ 10 cm in combination with a rebar diameter of d s ≤ 10 mm.

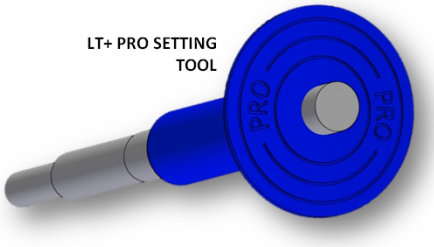
[2] Concrete is considered uncracked when the value of tension within the concrete is $\sigma_L + \sigma_R \leq 0$. In the absence of detailed verification $\sigma_R = 3$ N/mm² can be assumed (σ_L equals the tension within the concrete as a result of external loads, forces on anchor included; σ_R equals the tension coming from shrinkage or creep of the concrete, as well as displacements of supports or temperature variations).

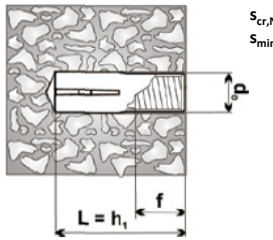
[3] Shear load figures apply for an anchor without influence of a concrete edge. For shear loads close to an edge ($c \leq 10 \times h_{ef}$), concrete edge failure has to be checked as per ETAG, Annex C, Design Method A.

The Drop in anchors are designed for medium-heavy and heavy loads. They are suitable for fixings in hard materials like concrete, solid brick (max. M 8) and natural stone. The anchors have a female thread. Suitable bolt length is 1-1.5x nominal size of anchor + fixture thickness.
NOTE - the anchors cannot be expanded by means of a screw but only with the appropriate LT+ or LT+ PRO setting tool.



IMPORTANT : EXPANSION OF THE ANCHOR ONLY WITH APPROPRIATE SETTING TOOL: LT+ OR LT+ PRO





$s_{cr,N}$ characteristic spacing
s_{min} minimum spacing
$c_{cr,N}$ characteristic edge distance
c_{min} minimum edge distance

ETA-13/0441: M6-M10, ETAG 001-6
ETA-13/0442: M8-M16, ETAG 001-1+4; Option 7

FOR SAFER CONSTRUCTION
SORMAT ACADEMY
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