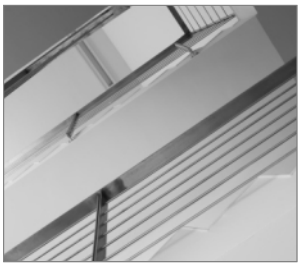
R-LX-P-ZP Zinc plated Pan-Head Concrete Screw Anchor, Part 6

Self-tapping concrete screwbolt



Approvals and Reports

- ETA 17/0783

Product information

Features and benefits

- Time-efficient through-fixing installation with streamlined procedure - simply drill and drive.
- Completely removable with possibility of reuse
- Unique design with patented threadform ensures high performance for relatively small hole diameter
- Non-expansion functioning ensures low risk of damage to base material and makes R-LX ideal for installation near edges and adjacent anchors
- High performance in both uncracked and cracked concrete
- Different head types for any application
- Oversize head for fixtures with elongated holes
- Excellent product for temporary fixing
- Suitable for standard and reduced embedment depth

Applications

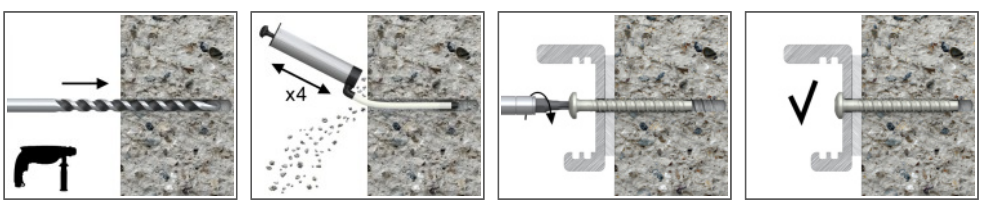
- Through-fixing
- Temporary anchorages
- Formwork support systems
- Balustrading & handrails
- Fencing & gates manufacturing and installation
- Racking systems
- Public seating
- Scaffolding

Base materials

Approved for use in:

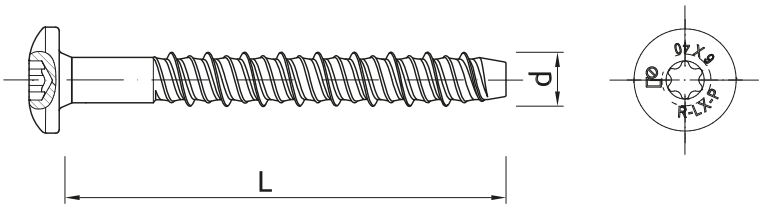
- Non-cracked concrete C20/25-C50/60
- Cracked concrete C20/25-C50/60

Installation guide



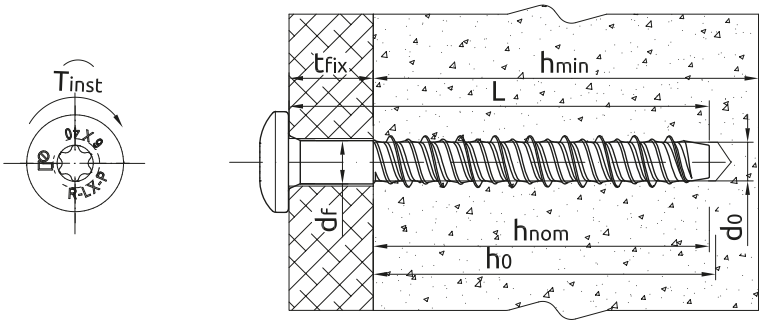
1. Drill the hole with rotary percussive machine. Drill to a required depth.
2. Blow out dust at least 4 times with a hand pump.
3. Tighten to the recommended torque.
4. After installation.

Product information



Size	Product Code	Anchor		Fixture		
		Diameter	Length	Max. thickness t_{fix} for:		Hole diameter
		d	L	$h_{nom,red}$	$h_{nom,std}$	d_f
		[mm]	[mm]	[mm]	[mm]	[mm]
6	R-LX-06X040-P-ZP	7.5	40	1	-	9

Installation data



Size			6
Thread diameter	d	[mm]	7.5
Hole diameter in substrate	d_0	[mm]	6
Screw drive	-	[-]	T30
STANDARD EMBEDMENT DEPTH			
Min. hole depth in substrate	$h_{0,s}$	[mm]	65
Installation depth	$h_{nom,s}$	[mm]	55
Min. substrate thickness	$h_{min,s}$	[mm]	84
Min. spacing	$s_{min,s}$	[mm]	45
Min. edge distance	$c_{min,s}$	[mm]	45
REDUCED EMBEDMENT DEPTH			
Min. hole depth in substrate	$h_{0,r}$	[mm]	50
Installation depth	$h_{nom,r}$	[mm]	39
Min. substrate thickness	$h_{min,r}$	[mm]	80
Min. spacing	$s_{min,r}$	[mm]	45
Min. edge distance	$c_{min,r}$	[mm]	45

Mechanical properties

Size			6
Nominal ultimate tensile strength - tension	f_{uk}	[N/mm²]	1250
Nominal yield strength - tension	f_{yk}	[N/mm²]	1100
Cross sectional area - tension	A_s	[mm²]	28.3
Elastic section modulus	W_{el}	[mm³]	21.2
Characteristic bending resistance	$M^0_{Rk,s}$	[Nm]	31.8
Design bending resistance	M	[Nm]	21.2

Basic performance data

Performance data for single anchor in tension without influence of edge distance and spacing

Size		6
Standard embedment depth h_{ef}	[mm]	42.00
Reduced embedment depth h_{ef}	[mm]	30.00
CHARACTERISTIC LOAD		
TENSION LOAD N_{Rk}		
Standard embedment depth	[kN]	9.00
Reduced embedment depth	[kN]	6.00
SHEAR LOAD V_{Rk}		
Standard embedment depth	[kN]	9.00
Reduced embedment depth	[kN]	6.00
DESIGN LOAD		
TENSION LOAD N_{Rd}		
Standard embedment depth	[kN]	6.00
Reduced embedment depth	[kN]	4.00
SHEAR LOAD V_{Rd}		
Standard embedment depth	[kN]	6.00
Reduced embedment depth	[kN]	4.00
RECOMMENDED LOAD		
TENSION LOAD N_{rec}		
Standard embedment depth	[kN]	4.28
Reduced embedment depth	[kN]	2.85
SHEAR LOAD V_{rec}		
Standard embedment depth	[kN]	4.28
Reduced embedment depth	[kN]	2.85

Design performance data

Standard embedment depth

Size			6
Installation depth	h_{nom}	[mm]	55.00
Effective embedment depth	h_{ef}	[mm]	42.00
TENSION AND SHEAR LOAD			
Characteristic resistance	F_{Rk}	[kN]	9.00
Installation safety factor	γ_2	-	1.00
Increasing factors for $N_{Rd,p}$ - C30/37	Ψ_c	-	1.08
Increasing factors for $N_{Rd,p}$ - C40/50	Ψ_c	-	1.15
Increasing factors for $N_{Rd,p}$ - C50/60	Ψ_c	-	1.19
Spacing	$s_{cr,N}$	-	126.00
Edge distance	$c_{cr,N}$	-	63.00
SHEAR LOAD			
STEEL FAILURE			
Characteristic resistance with lever arm	$M_{Rk,s}$	[Nm]	31.80
Partial safety factor	γ_{Ms}	-	1.50

Design performance data

Characteristic Resistance under fire exposure in concrete C20/25 to C50/60

Size			6
TENSION AND SHEAR LOAD			
Spacing	s_{cr}	[mm]	168.00
Edge distance	c_{cr}	[mm]	84.00
R (for EI) = 30 min			
TENSION AND SHEAR LOAD			
Characteristic resistance	F_{Rk}	[kN]	0.28
R (for EI) = 60 min			
TENSION AND SHEAR LOAD			
Characteristic resistance	F_{Rk}	[kN]	0.25
R (for EI) = 90 min			
TENSION AND SHEAR LOAD			
Characteristic resistance	F_{Rk}	[kN]	0.20
R (for EI) = 120 min			
TENSION AND SHEAR LOAD			
Characteristic resistance	F_{Rk}	[kN]	0.14

Reduced embedment depth

Size			6
Installation depth	h_{nom}	[mm]	39.00
Effective embedment depth	h_{ef}	[mm]	30.00
TENSION AND SHEAR LOAD			
Characteristic resistance	F_{Rk}	[kN]	6.00
Installation safety factor	γ_2	-	1.00
Increasing factors for $N_{Rd,p}$ - C30/37	Ψ_c	-	1.08
Increasing factors for $N_{Rd,p}$ - C40/50	Ψ_c	-	1.15
Increasing factors for $N_{Rd,p}$ - C50/60	Ψ_c	-	1.19
Spacing	$s_{cr,N}$	-	90.00
Edge distance	$c_{cr,N}$	-	45.00
SHEAR LOAD			
STEEL FAILURE			
Characteristic resistance with lever arm	$M_{Rk,s}$	[Nm]	31.80
Partial safety factor	γ_{Ms}	-	1.50

Design performance data

Characteristic Resistance under fire exposure in concrete C20/25 to C50/60

Size			6
TENSION AND SHEAR LOAD			
Spacing	s_{cr}	[mm]	168.00
Edge distance	c_{cr}	[mm]	84.00
R (for EI) = 30 min			
TENSION AND SHEAR LOAD			
Characteristic resistance	F_{Rk}	[kN]	0.28
R (for EI) = 60 min			
TENSION AND SHEAR LOAD			
Characteristic resistance	F_{Rk}	[kN]	0.25
R (for EI) = 90 min			
TENSION AND SHEAR LOAD			
Characteristic resistance	F_{Rk}	[kN]	0.20
R (for EI) = 120 min			
TENSION AND SHEAR LOAD			
Characteristic resistance	F_{Rk}	[kN]	0.14

Product commercial data

Size	Product Code	Anchor	Quantity [pcs]			Weight [kg]			Bar Codes
		Length [mm]	Box	Outer	Pallet	Box	Outer	Pallet	
6	R-LX-06X040-P-ZP[1)]	40	100	100	41600	0.14	0.14	88.3	5906675034546

1) ETA 17/0783