

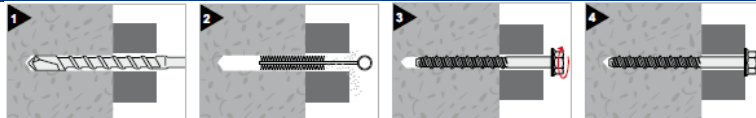
CLR INOX A4 OPTION 1



PRODUCT DESCRIPTION

High performance bimetal screw anchor 8/10 for structural fixing with hexagonal head with build-in washer and knurling under head. Stainless steel A4 screw body and high resistance steel point for safer installation. The anchor screw is intended for installing in cracked and non-cracked concrete (Option 1). Permanent and temporary fixing. Anchor can be unscrew and removed.

APPLICATION



LENGTH OF SCREWS

CLR INOX A4				
d ₀ ¹⁾	L ²⁾ [mm]	Thickness fixture [mm]	Marking	Code
		t _{fix.}		
8	100	15	LR 8x100 o SK 8x100	72010010100
	110	25	LR 8x110 o SK 8x110	72010010110
	120	35	LR 8x120 o SK 8x120	72010010120
10	115	15	LR 10x115 o SK 10x115	72010012115
	125	25	LR 10x125 o SK 10x125	72010012125
	135	35	LR 10x135 o SK 10x135	72010012135

¹⁾ Anchor size; ²⁾ Length of screw.

EUROPEAN TECHNICAL ASSESSMENT ETA-19/0332

CHARACTERISTIC LOADS acc. to ETA-19/0332 - EAD 330232-00-0601

Design method acc. to EN 1992-4:2018

ESSENTIAL CHARACTERISTICS		PERFORMANCE	
Parametry montażu		8	10
d_0	Nominal diameter of drill bit [mm]	8	10
h_{nom}	Minimum installation depth [mm]	<u>85</u>	<u>100</u>
h_{ef}	Effective anchorage depth [mm]	51,9	58,7
h_{min}	Minimum thickness of the concrete member [mm]	125	140
s_{min}	Minimum spacing [mm]	50	60
c_{min}	Minimum Edge distance [mm]	50	60
Tension Steel failure			
$N_{Rk,s}$	Tension Steel characteristic failure [kN]	33,0	53,7
$\gamma_{m,sN}^{1)}$	Partial safety factor for tension steel failure [-]	1,5	
Pull-out failure			
$N_{Rk,p,cr}$	Tension characteristic load in cracked concrete C20/25 [kN]	4,5	7,0
$N_{Rk,p,ucr}$	Tension characteristic load in un-cracked concrete C20/25 [kN]	9,0	16,0
γ_{inst}	Partial safety factor [-]	1,4	1,0
$\gamma_{m,p}^{1)}$	Partial safety factor [-]	2,1	1,5
$\Psi_{c\ C30/37}$	Increasing factor for concrete C30/37 [-]	1,22	
$\Psi_{c\ C40/50}$	Increasing factor for concrete C40/50 [-]	1,41	
$\Psi_{c\ C50/60}$	Increasing factor for concrete C50/60 [-]	1,58	
Concrete Cone and Splitting failure			
h_{ef}	Effective anchorage depth [mm]	51,9	58,7
$s_{cr,N}$	Critical spacing [mm]	3 h_{ef}	
$c_{cr,N}$	Critical edge distance [mm]	1,5 h_{ef}	
$s_{cr,sp}$	Critical spacing (splitting) [mm]	3 h_{ef}	
$c_{cr,sp}$	Critical edge distance (splitting) [mm]	1,5 h_{ef}	
Displacement on Tension Load			
N_{cr}	Service tension load in cracked concrete C20/25 [kN]	1,5	3,3
$\delta_{N0,cr}$	Short term displacement under tension load [mm]	0,1	0,2
$\delta_{N\infty,cr}$	Long term displacement under tension load [mm]	0,8	1,0
N_{ucr}	Service tension load in un-cracked concrete C20/25 [kN]	3,1	7,6
$\delta_{N0,ucr}$	Short term displacement under tension load [mm]	0,1	0,1
$\delta_{N\infty,ucr}$	Long term displacement under tension load [mm]	0,8	1,0
Shear Steel failure			
h_{nom}	Minimum installation depth [mm]	85	100
$V_{Rk,s}$	Shear Steel characteristic failure [kN]	16,5	26,8
$M^0_{Rk,s}$	Bending Moment characteristic failure [Nm]	35,9	74,4
$\gamma_{m,sV}^{1)}$	Partial safety factor for shear steel failure [-]	1,25	
Shear Concrete Pry-out failure			
K_g	Factor acc. to EN 1992-4 § 7.2.2.4 [-]	1,0	
Shear Concrete Edge failure			
l_{ef}	Effective anchorage length [mm]	51,9	58,7
d_{nom}	Nominal diameter of anchor [mm]	7,25	9,24
$\gamma_{mc}^{1)}$	Partial safety factor [-]	1,5	
Displacement on Shear Load			
V	Service shear load in concrete [kN]	9,4	15,3
δ_{V0}	Short term displacement under shear load [mm]	1,8	
$\delta_{V\infty}$	Long term displacement under shear load [mm]	2,7	

FIRE RESISTANCE acc. to ETA-19/0332 Design method acc. to EN 1992-4:2018			
ESSENTIAL CHARACTERISTICS		PERFORMANCE	
Tension steel failure		8	10
h_{nom}	Minimum installation depth [mm]	<u>85</u>	<u>100</u>
N_{Rk,s,fi,R30}	Characteristic Tension Resistance = 30 min. [kN]	0,8	1,7
N_{Rk,s,fi,R60}	Characteristic Tension Resistance = 60 min. [kN]	0,7	1,3
N_{Rk,s,fi,R90}	Characteristic Tension Resistance = 90 min. [kN]	0,5	1,0
N_{Rk,s,fi,R120}	Characteristic Tension Resistance = 120 min. [kN]	0,4	0,9
S_{cr,N,fi}	Critical spacing under fire exposure [mm]	4xh _{ef}	
S_{min}	Minimum spacing under fire exposure [mm]	50	60
C_{cr,N,fi}	Critical edge distance under fire exposure [mm]	2xh _{ef}	
C_{min}	Minimum edge distance under fire exposure [mm]	50	60
Shear steel failure without lever arm			
h_{nom}	Minimum installation depth [mm]	<u>85</u>	<u>100</u>
V_{Rk,s,fi,R30}	Characteristic Shear Resistance = 30 min. [kN]	0,8	1,7
V_{Rk,s,fi,R60}	Characteristic Shear Resistance = 60 min. [kN]	0,7	1,3
V_{Rk,s,fi,R90}	Characteristic Shear Resistance = 90 min. [kN]	0,5	1,0
V_{Rk,s,fi,R120}	Characteristic Shear Resistance = 120 min. [kN]	0,4	0,9
Shear steel failure with lever arm			
M⁰_{Rk,s,fi,R30}	Characteristic Bending Moment = 30 min. [Nm]	0,9	2,3
M⁰_{Rk,s,fi,R60}	Characteristic Bending Moment = 60 min. [Nm]	0,7	1,9
M⁰_{Rk,s,fi,R90}	Characteristic Bending Moment = 90 min. [Nm]	0,5	1,5
M⁰_{Rk,s,fi,R120}	Characteristic Bending Moment = 120 min. [Nm]	0,45	1,3
Shear concrete pry-out failure			
K	Factor acc. to EN 1992-4 [-]	1,0	
Shear concrete edge failure			
The characteristic resistance V ⁰ _{Rk,c,fi} in C20/25 to C50/60 concrete is determined by: V ⁰ _{Rk,c,fi} = 0,25 × V ⁰ _{Rk,c} (≤ R90) and V ⁰ _{Rk,c,fi} = 0,20 × V ⁰ _{Rk,c} (R120) with V ⁰ _{Rk,c} initial value of the characteristic resistance in cracked concrete C20/25 under normal temperature acc. EN 1992-4			

¹⁾ In absence of other national regulations.

OTHER CHARACTERISTICS

Type	Concrete screw
Material	Stainless steel A4
Durability	Internal dry conditions and external atmospheric exposure or exposure in permanently damp internal conditions if no particular aggressive conditions exist



Nośność
ogniowa R120