

# FOR SPECIAL APPLICATIONS

## FRAME PLUGS Ø10 STRONG

**NEW!**



### KPR-STRONG 10 K



TX-40/SW-13 HEX HEAD SCREW

**100% secure fixing**

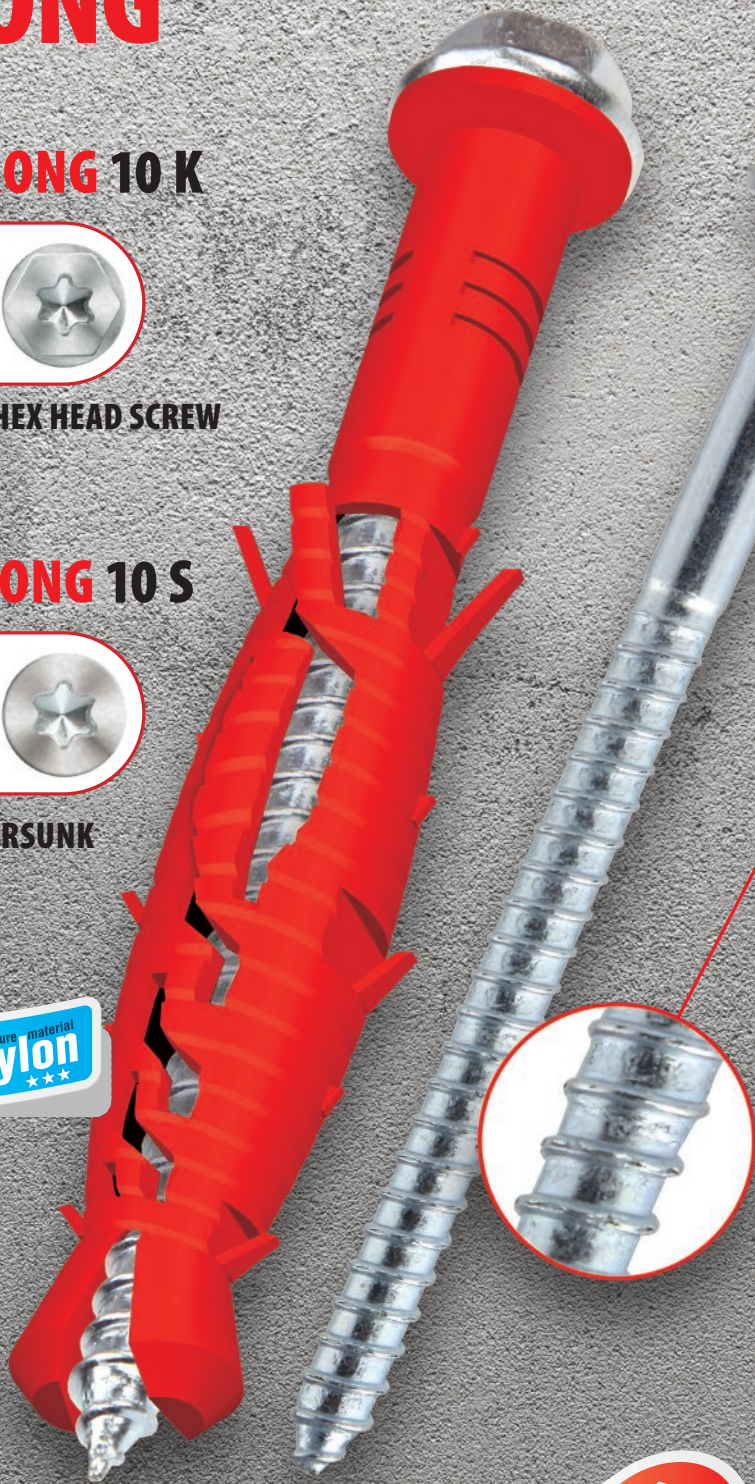
### KPS-STRONG 10 S



TX-40 COUNTERSUNK HEAD SCREW

**100% pure material nylon**

**NEW STRONGER SCREW!**  
Improved, hardened screw has better torsional and bending strength, which eliminates the problem of head failure when installing the screw in very hard materials. The TX drive head for use with wrench enables fast installation without the risk of damaging the drive.



ETAG 020



all Directions expansion zone





**KPR-STRONG 10 K**

**KPR-STRONG 10 K A4**

**KPR-STRONG 10 K 00**

Frame plug Ø10 with hex head screw  
**ZINC PLATED SCREW**

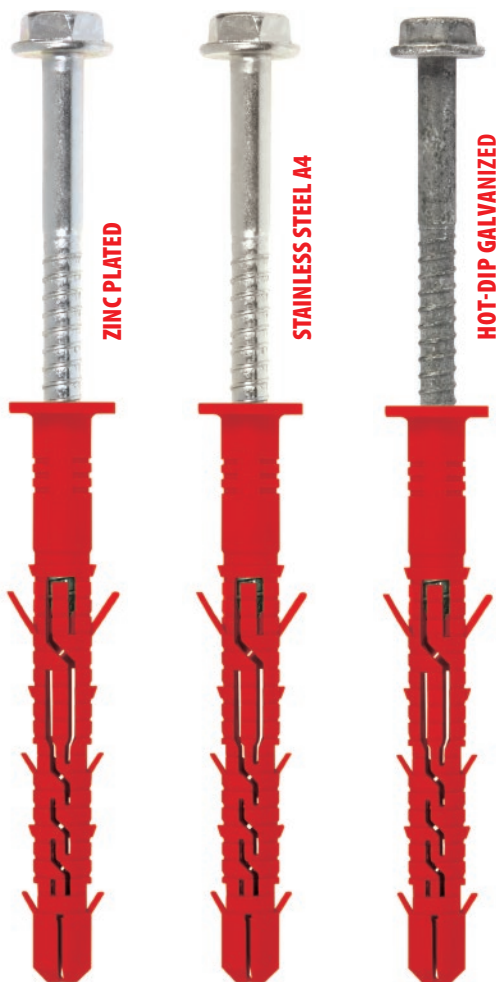
Frame plug Ø10 with hex head screw  
**A4 STEEL SCREW**

Frame plug Ø10 with hex head screw  
**HOT-DIP GALVANIZED SCREW**



ETA-12/0272

**NEW!**



Description

Frame plug with flanged hex head screw for fixing of metal members

Technical data

Type of installation: push-through installation  
Substrate: concrete, solid clay brick

Sleeve material / Protective coating



Features and advantages of the product

**< 300 mm >**

Screw length

We manufacture screws up to 300 mm long



Hex head with TX-40/SW-13 drive

TX drive ensures optimum transfer of torque while SW-13 hex head allows for tightening the screw with a given force (e.g. with torque wrench).



NEW STRONGER SCREW!

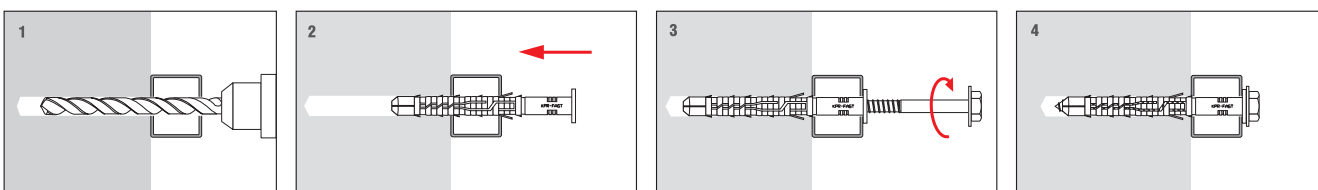
Improved, hardened screw has better torsional and bending strength, which eliminates the problem of head failure when installing the screw in very hard materials. The TX drive head for use with wrench enables fast installation without the risk of damaging the drive.



Resistance to fire

For assembling facade systems the fastener has a sufficient fire resistance of at least 90 minutes (R90) if the permissible design load for a single anchorage  $N_r \leq 0.8$  kN (without permanent longitudinal axial load).

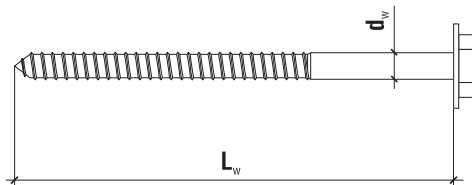
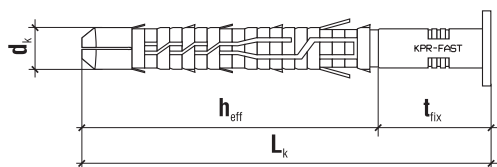
Installation



### TECHNICAL DATA

Product marking

<b>KPR-STRONG</b>	<b>10</b>	<b>080</b>	<b>K</b>	<b>00</b>
Type	Diameter	Length	Head type	Type of steel and coating

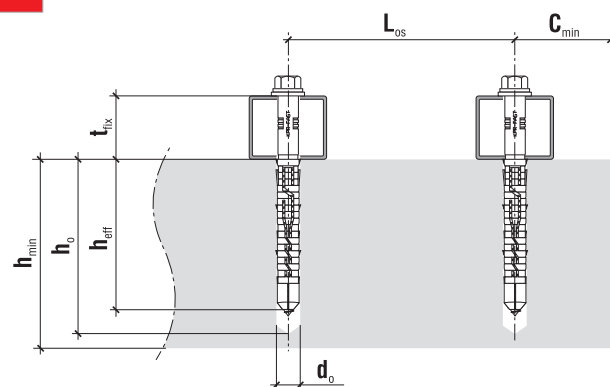


SW-13  
TX-40

Ø10	Code BLUE ZINC PLATED	Code A4 STAINLESS STEEL	Code HOT-DIP GALVANIZED	$d_k \times L_k$ [mm]	$d_w \times L_w$ [mm]	Max. fixture thickness $t_{fix}$ [mm]	Drive type		Pcs
	KPR-STRONG-10080K	KPR-STRONG-10080K-A4	KPR-STRONG-10080K-00	10 x 80	7.0 x 85	10	TX-40	SW-13	50
	KPR-STRONG-10100K	KPR-STRONG-10100K-A4	KPR-STRONG-10100K-00	10 x 100	7.0 x 105	30	TX-40	SW-13	50
	KPR-STRONG-10120K	KPR-STRONG-10120K-A4	KPR-STRONG-10120K-00	10 x 120	7.0 x 125	50	TX-40	SW-13	50
	KPR-STRONG-10140K	KPR-STRONG-10140K-A4	KPR-STRONG-10140K-00	10 x 140	7.0 x 145	70	TX-40	SW-13	50
	KPR-STRONG-10160K	KPR-STRONG-10160K-A4	KPR-STRONG-10160K-00	10 x 160	7.0 x 165	90	TX-40	SW-13	50
	KPR-STRONG-10180K	KPR-STRONG-10180K-A4	KPR-STRONG-10180K-00	10 x 180	7.0 x 185	110	TX-40	SW-13	25
	KPR-STRONG-10200K	KPR-STRONG-10200K-A4	KPR-STRONG-10200K-00	10 x 200	7.0 x 205	130	TX-40	SW-13	25
	KPR-STRONG-10230K	KPR-STRONG-10230K-A4	KPR-STRONG-10230K-00	10 x 230	7.0 x 235	160	TX-40	SW-13	25
	KPR-STRONG-10260K	KPR-STRONG-10260K-A4	KPR-STRONG-10260K-00	10 x 260	7.0 x 265	190	TX-40	SW-13	25
	KPR-STRONG-10300K	KPR-STRONG-10300K-A4	KPR-STRONG-10300K-00	10 x 300	7.0 x 305	230	TX-40	SW-13	25
	<b>MADE TO ORDER</b>	<b>MADE TO ORDER</b>	<b>MADE TO ORDER</b>						

### TECHNICAL DATA

Parameter	Unit	Value
Plug diameter	$d_k$ [mm]	10
Hole/drill diameter	$d_o$ [mm]	10
Effective anchorage depth	$h_{eff}$ [mm]	70
Depth of drill hole	$h_o$ [mm]	80
Drive/key type	x	TX-40/SW-13
Use categories	x	A B
Sleeve material	x	PA
Screw material	x	A4, hot-dip galvanized, steel
Approval	x	ETA-12/0272



### SUBSTRATE - MINIMUM THICKNESS, DISTANCE

Substrate	Min. member thickness $h_{min}$ [mm]	Min. edge distance $c_{min}$ [mm]
Concrete $\geq$ C16/20	100	60
Solid clay brick	120	100
Solid sand-lime brick	120	100






From now all our framework fasteners Fast and Strong are **PRE-ASSEMBLED**.

Pre-assembled products means:

- ✓ easier and faster mounting
- ✓ no wasting time for assembling
- ✓ no mistake in choosing sleeve to the screw

### RESISTANCE **KPR-STRONG-10 K / KPS-STRONG-10 S**

Type of substrate according to ETAG020	Description	Density [kg/dm <sup>3</sup> ]	Standard	Characteristic pull-out resistance [kN]	
				KPR-STRONG 10 K	KPS-STRONG 10 S
<b>A</b>	 Concrete ≥C16/20	≥ 1.8	EN 206-1	4.5*	
	Concrete C20/25	≥ 2.3	EN 206-1	6.0*	
<b>B</b>	 Solid clay brick (e.g. MZ Rd 2.0/20)-DIN 106)	≥ 2.0	EN 771-1	3.5	
<b>B</b>	 Solid sand-lime brick (e.g. Kalksandstein KS NF 20-2.0 Vollstein- DIN 106)	≥ 2.0	EN 771-2	3.5	

\* cracked concrete