

KCX Tubed insulation washer

Insulation washer with integral cap suitable for attachment of insulation layers to wooden and sheet metal substrates.



Product information

Features and benefits

- Recommended for the attachment of ETICS to wooden substrates using UC screws, or to sheet metal using WB screws (allows setting without pre-drilling, thus saving a stage of installation)
- Special design of integral fastener cap allows reduction of thermal bridges to 0,001W/K.
- Design with long tube allows to use short length of the screw for best cost effective solution to fix large insulation thickness.
- Consistent and reliable holding force
- Quick, simple and clean installation.
- Can be used in combination with additional KWL plate - 90, 110 or 140mm diameter.

Applications

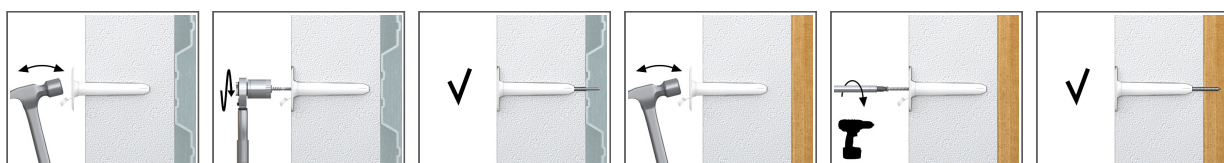
- External Thermal Insulation Composite Systems (ETICS)

Base materials

Approved for use in:

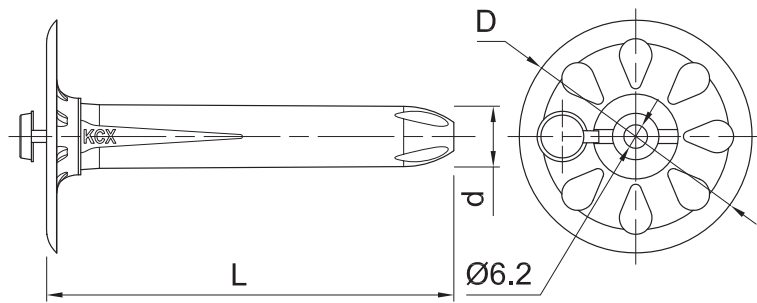
- Metal Sheet & Profiles
- Wood
- Timber
- Chipboard
- Concrete

Installation guide



1. Lightly insert KCX washer into surface of insulation material.
2. Drive the required screw through the washer and insulation material into the substrate, until fixing depth is reached.
3. In wooden substrates the washer is recommended for use with the UC chipboard screw.
4. In sheet metal the washer is recommended for use with either the WB or WX self-drilling screw.

Product information



Size	Product Code	Screw	Screw		Fixture	Diameter	Length
			Diameter	Length	Max. thickness		
			d	L	t _{fix}	D	L
			[mm]				
KCX with screw to wood							
Ø5	KCX-055	R-UC-5050	5	50	70	60	55
		R-UC-5060	5	60	80	60	55
		R-UC-5070	5	70	90	60	55
		R-UC-5080	5	80	100	60	55
		R-UC-5090	5	90	110	60	55
Ø6	KCX-105	R-UC-6050	6	50	120	60	105
		R-UC-6060	6	60	130	60	105
		R-UC-6070	6	70	140	60	105
		R-UC-6080	6	80	150	60	105
		R-UC-6090	6	90	160	60	105
	KCX-165	R-UC-6100	6	100	170	60	105
		R-UC-6050	6	50	180	60	165
		R-UC-6060	6	60	190	60	165
		R-UC-6070	6	70	200	60	165
		R-UC-6080	6	80	210	60	165
Ø4.8	KCX-055	R-WX-48050	4.8	50	70	60	55
		R-WX-48060	4.8	60	80	60	55
		R-WX-48070	4.8	70	90	60	55
		R-WX-48080	4.8	80	100	60	55
		R-WX-48100	4.8	100	110	60	55
	KCX-105	R-WX-48050	4.8	50	120	60	105
		R-WX-48060	4.8	60	130	60	105
		R-WX-48070	4.8	70	140	60	105
KCX-165	R-WX-48080	4.8	80	150	60	105	
	R-WX-48100	4.8	100	170	60	105	
	R-WX-48050	4.8	50	180	60	165	
	R-WX-48060	4.8	60	190	60	165	
	R-WX-48070	4.8	70	200	60	165	
	R-WX-48080	4.8	80	210	60	165	
	R-WX-48100	4.8	100	230	60	165	
	R-WX-48120	4.8	120	250	60	165	
	R-WX-48140	4.8	140	270	60	165	
	R-WX-48160	4.8	160	290	60	165	
KCX with selfdrilling screw to metal sheet							
Ø4.8	KCX-055	R-WX-48180	4.8	180	310	60	165
		R-WX-48200	4.8	200	330	60	165
		R-WX-48050	4.8	50	180	60	165
		R-WX-48060	4.8	60	190	60	165
		R-WX-48070	4.8	70	200	60	165
	KCX-105	R-WX-48080	4.8	80	210	60	165
		R-WX-48100	4.8	100	230	60	165
		R-WX-48120	4.8	120	250	60	165
	KCX-165	R-WX-48140	4.8	140	270	60	165
		R-WX-48160	4.8	160	290	60	165
		R-WX-48180	4.8	180	310	60	165
		R-WX-48200	4.8	200	330	60	165
		R-WX-48050	4.8	50	180	60	165
		R-WX-48060	4.8	60	190	60	165
		R-WX-48070	4.8	70	200	60	165
		R-WX-48080	4.8	80	210	60	165
		R-WX-48100	4.8	100	230	60	165
		R-WX-48120	4.8	120	250	60	165

Product information

Size	Product Code	Screw	Screw		Fixture	Diameter	Length
			Diameter	Length	Max. thickness		
			d	L	t _{fix}	D	L
			[mm]				
Ø4.8	KCX-165	R-WX-48240	4.8	240	370	60	165
		R-WX-48300	4.8	300	430	60	165
KCCX with screw to metal sheet							
Ø4.8	KCX-055	R-WO-48060	4.8	60	80	60	55
		R-WO-48080	4.8	80	100	60	55
		R-WO-48100	4.8	100	110	60	55
	KCX-105	R-WO-48060	4.8	60	130	60	105
		R-WO-48080	4.8	80	150	60	105
		R-WO-48100	4.8	100	170	60	105
	KCX-165	R-WO-48060	4.8	60	190	60	165
		R-WO-48080	4.8	80	210	60	165
		R-WO-48100	4.8	100	230	60	165
		R-WO-48120	4.8	120	250	60	165
		R-WO-48140	4.8	140	270	60	165
		R-WO-48160	4.8	160	290	60	165
		R-WO-48180	4.8	180	310	60	165
		R-WO-48200	4.8	200	330	60	165
	R-WO-48240	4.8	240	370	60	165	
	R-WO-48300	4.8	300	430	60	165	
KCCX with screw to concrete							
Ø6.1	KCX-055	R-WBT-61075	6.1	75	90	60	55
		R-WBT-61100	6.1	100	110	60	55
	KCX-105	R-WBT-61075	6.1	75	140	60	105
		R-WBT-61100	6.1	100	160	60	105
		R-WBT-61120	6.1	120	180	60	105
	KCX-165	R-WBT-61075	6.1	75	200	60	165
		R-WBT-61100	6.1	100	230	60	165
		R-WBT-61120	6.1	120	250	60	165
		R-WBT-61140	6.1	140	270	60	165
		R-WBT-61160	6.1	160	290	60	165
		R-WBT-61180	6.1	180	310	60	165
		R-WBT-61200	6.1	200	330	60	165
		R-WBT-61220	6.1	220	430	60	165
		R-WBT-61240	6.1	240	450	60	165
		R-WBT-61260	6.1	260	470	60	165
		R-WBT-61300	6.1	300	510	60	165

Installation data

Substrate			Timber		Steel	Timber	Concrete
Hole diameter in substrate	d ₀	[mm]	-	-	-	-	5
Min. installation depth	h _{nom}	[mm]	20	24	0.5	30	30
Min. hole depth in substrate	h ₀	[mm]	-	-	-	-	35
Min. substrate thickness	h _{min}	[mm]	20	24	0.5	30	80
Min. spacing	s _{min}	[mm]	100	100	120	120	120
Min. edge distance	c _{min}	[mm]	100	100	30	30	50
Fixing diameter	d	[mm]	5	6	4.8	6.1	6.1

Basic performance data

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

Substrate		Timber			OSB	Steel				Timber	Concrete
		20	24	19	18	0.5	0.63	0.75	0.88	30	30
Effective embedment depth h_{ef}	[mm]	20	24	19	18	0.5	0.63	0.75	0.88	30	30
CHARACTERISTIC LOAD N_{Rk}											
KCX + UC 5	[kN]	1.29	-	-	-	-	-	-	-	-	-
KCX + UC 6	[kN]	-	1.29	-	-	-	-	-	-	-	-
KCX + WO 4.8	[kN]	-	-	1.29	1.29	0.66	0.86	1.29	-	-	-
KCX + WX 4.8	[kN]	-	-	-	-	-	-	1.29	1.29	-	-
KCX + WBT 6.1	[kN]	-	-	-	-	-	-	-	-	1.29	1.29
DESIGN LOAD N_{Rd}											
KCX + UC 5	[kN]	0.65	-	-	-	-	-	-	-	-	-
KCX + UC 6	[kN]	-	0.65	-	-	-	-	-	-	-	-
KCX + WO 4.8	[kN]	-	-	0.65	0.65	0.50	0.65	0.65	-	-	-
KCX + WX 4.8	[kN]	-	-	-	-	-	-	0.65	0.65	-	-
KCX + WBT 6.1	[kN]	-	-	-	-	-	-	-	-	0.65	0.65

Product commercial data

Size	Product Code	Length [mm]	Screw	Quantity [pcs]			Weight [kg]			Bar Codes
			Length [mm]	Box	Outer	Pallet	Box	Outer	Pallet	
	KCX-055	55		400	400	22400	3.9	3.9	246.3	5906675078984
	KCX-105	105		250	250	12000	3.6	3.6	203.8	5906675078991
	KCX-165	165		150	150	8400	3.0	3.0	197.4	5906675079004
Ø4.8	R-WO-48T060		60	250	3000	72000	1.38	16.6	428.6	5906675104676
	R-WO-48T080		80	250	3000	72000	1.81	21.7	551.6	5906675104683
	R-WO-48T100		100	200	3200	76800	1.85	29.6	741.2	5906675104690
	R-WO-48T120		120	200	3200	76800	2.1	33.9	842.9	5906675104706
	R-WO-48T140		140	200	2400	57600	2.5	30.4	760.4	5906675104713
	R-WO-48T160		160	100	1200	28800	1.59	19.1	488.2	5906675104720
	R-WO-48T180		180	100	100	16800	1.83	1.83	337.8	5906675104744
	R-WO-48T200		200	100	100	16800	2.0	2.0	371.5	5906675104751
	R-WO-48T240		240	100	100	16800	2.2	2.2	399.9	5906675104768
	R-WO-48T300		300	100	100	16800	2.7	2.7	485.8	5906675104775
	R-WX-48050		50	250	3000	72000	1.10	13.2	346.8	5906675175140
	R-WX-48060		60	250	3000	72000	1.39	16.7	430.3	5906675175164
	R-WX-48070		70	250	3000	72000	1.61	19.3	493.7	5906675175188
	R-WX-48080		80	250	3000	72000	1.89	22.7	574.3	5906675175201
	R-WX-48100		100	200	2400	57600	1.85	22.2	562.8	5906675175225
	R-WX-48120		120	200	2400	57600	2.2	26.5	666.5	5906675175249
	R-WX-48140		140	200	2400	57600	2.6	30.8	770.2	5906675175263
	R-WX-48160		160	100	1200	28800	1.50	17.9	460.6	5906675175287
	R-WX-48180		180	100	100	16800	1.67	1.67	310.6	5906675175300
	R-WX-48200		200	100	100	16800	1.85	1.85	340.8	5906675175324
R-WX-48240		240								
R-WX-48300		300	100	100	16800	2.8	2.8	491.2	5906675175348	
R-WX-48T050		50	250	3000	72000	1.17	14.1	367.8	5906675104157	
R-WX-48T060		60	250	3000	72000	1.39	16.6	429.5	5906675104164	
R-WX-48T070		70	250	3000	72000	1.61	19.3	492.2	5906675104171	
R-WX-48T080		80	250	3000	72000	1.86	22.3	564.8	5906675104188	

Product commercial data

Size	Product Code	Screw Length [mm]	Quantity [pcs]			Weight [kg]			Bar Codes
			Box	Outer	Pallet	Box	Outer	Pallet	
Ø4.8	R-WX-48T100	100	200	2400	57600	1.86	22.4	566.8	5906675104201
	R-WX-48T120	120	200	2400	57600	2.2	26.9	675.4	5906675104232
	R-WX-48T140	140	200	2400	57600	2.6	31.3	780.2	5906675104256
	R-WX-48T160	160	100	1200	28800	1.51	18.1	463.7	5906675104263
	R-WX-48T180	180	100	100	16800	1.75	1.75	324.7	5906675104270
	R-WX-48T200	200	100	100	16800	1.93	1.93	353.6	5906675104287
	R-WX-48T240	240	100	100	16800	2.3	2.3	408.8	5906675104300
	R-WX-48T300	300	100	100	16800	2.8	2.8	498.0	5906675104317
Ø6.1	R-WBT-61050	50	100	3200	76800	0.79	25.2	634.4	5906675101200
	R-WBT-61075	75	100	1600	38400	1.11	17.7	454.3	5906675101231
	R-WBT-61090	90	100	1600	38400	1.34	21.4	543.8	5906675101309
	R-WBT-61100	100	100	1600	38400	1.49	23.9	602.5	5906675101408
	R-WBT-61120	120	100	1200	28800	1.77	21.3	540.9	5906675101439
	R-WBT-61140	140	100	1200	28800	2.0	24.5	618.7	5906675101460
	R-WBT-61160	160	100	1200	28800	2.3	28.1	704.2	5906675101514
	R-WBT-61180	180	100	100	16800	2.7	2.7	477.9	5906675225173
	R-WBT-61200	200	100	100	16800	2.9	2.9	518.5	5906675101927
	R-WBT-61220	220	100	100	16800	3.2	3.2	568.4	5906675102214
	R-WBT-61240	240	100	100	16800	3.5	3.5	620.7	5906675102245
	R-WBT-61260	260	100	100	16800	3.8	3.8	661.7	5906675102269
	R-WBT-61300	300	100	100	7800	4.3	4.3	367.0	5906675102290