

APPLICATION

ANKIT® is used to attach KWS® CI-GIRT® and HCI-GIRT to a variety of substrates while helping to overcome the challenges of thermal-bridging and wind-driven rain at the penetration through the building's envelope. The wedge tip feature of the polycarbonate tube is specially designed to aid the water resistive barriers (WRB) ability to resist water through the penetration.

PRODUCT FEATURES

- ASTM E331: Multiple assemblies of various insulations and air/water barrier combinations have been tested up to 25 PSF pressure differential with no leakage observed.
- Clean puncture through WRB for increased performance.
- Stabilizes fastener during install to reduce wobbling and other installation instabilities.
- Thermal break between fastener and girt.
- Case-hardened and tempered screw for easy installation and long-term durability.
- 6-lobe internal drive offers excellent bit engagement during installation, especially in high torque application.

MATERIAL SPECIFICATIONS

SCREW MATERIAL	Case-hardened & tempered ASTM A510 Carbon Steel
SCREW COATING	HCR® double barrier coating for high corrosion resistance
TUBE MATERIAL	SABIC LEXAN 143 Polycarbonate

FASTENER PROPERTIES

FASTENER	ALLOWABLE TENSILE (LB) AISI S904	ALLOWABLE SHEAR (LB) AISI S904	BENDING YIELD STRENGTH FYB (KSI) ASTM F1575	CORRSION RESISTANCE ASTM B117
TP	1,185	860	185	>1,000 hrs
LD	1,130	830	185	>1,000 hrs

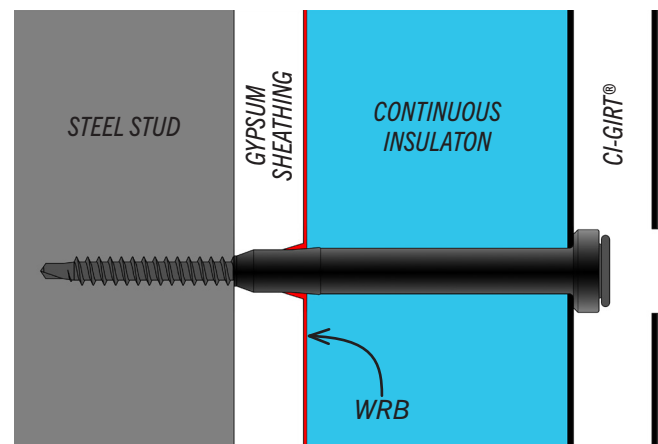
TP #14 (Thread Point)

Gimlet Point for Wood Stud, Concrete and CMU Applications.



LD #14 (Light Duty)

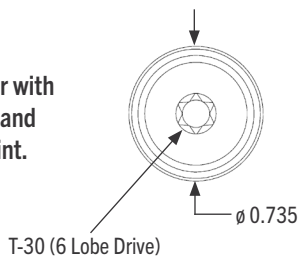
Drill Point for Steel, Wood, Concrete & CMU Applications.



PRODUCT SPECIFICATIONS

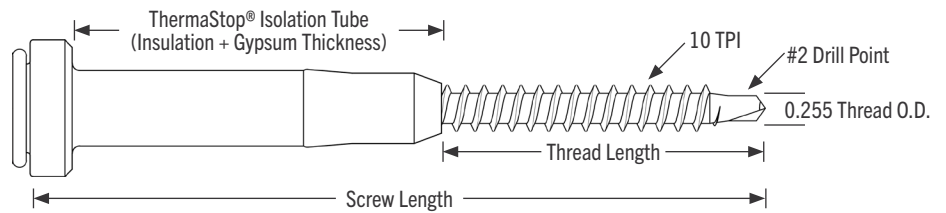
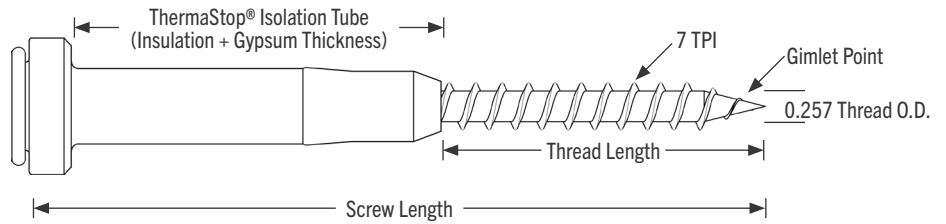
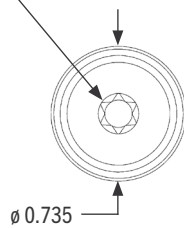
ANKIT with TP Screw

No. 14 fastener with pancake head and thread drill point.



ANKIT with LD Screw

No. 14 fastener with pancake head and two-flute drill tip.



INSTALLATION GUIDELINES

ANKIT® fasteners are intended to mechanically attach KWS® CI-GIRT® or HCI-GIRT through foam or mineral wool rigid insulation boards to various substrates.

- LD (Light Duty) screws are for installation into light gauge steel substrates (20-16 GA), wood, concrete or CMU. Install using a maximum 2,000 rpm screw gun.
- TP (Thread Point) screws are for installation into wood, concrete or CMU. Install using a low rpm/high torque screw gun.
- Lead holes are not required when installing into wood for both LD and TP screws.
- For installation into concrete or CMU, predrill with 3/16 in. masonry bit for both LD and TP screws.

CAUTION: These fasteners shall not be struck with a hammer during installation.



ANKIT[®] FASTENER WITH THERMASTOP[®] ISOLATION TUBE

DESIGN PROPERTIES

TENSION VALUES IN CONCRETE & CMU (LB)				
COMPRESSION STRENGTH	3000 PSI CONCRETE	5000 PSI CONCRETE	7000 PSI CONCRETE	CMU
TP	699	859	1048	713
LD	471	648	783	553

All values are ultimate with 1-inch embedment.

Fastener penetration is the threaded length embedded in the main member, including the tip.

TP/LD MINIMUM SPACING REQUIREMENTS (IN)	
MINIMUM SPACING	3
CRITICAL EDGE DISTANCE	3
MINIMUM EDGE DISTANCE	2.5

WITHDRAWAL VALUES IN LUMBER AND ENGINEERED WOOD (LB/IN)					
WOOD TYPE (SPECIFIC GRAVITY)	SPF (0.42)	DF-L (0.50)	LVL FACE (0.50)	LVL EDGE (0.50)	LSL FACE (0.50)
TP	615	702	556	495	711
LD	497	720	540	469	646

All values are ultimate at 1-inch penetration into main member.

Fastener penetration is the threaded length embedded in the main member, including the tip.

WITHDRAWAL VALUES IN ENGINEERED WOOD (LB)						
WOOD TYPE	OSB			PLYWOOD		
THICKNESS	1/2"	19/32"	23/32"	15/32"	19/32"	23/32"
TP	244	324	626	333	529	681
LD	261	334	693	344	519	720

All values are ultimate with penetration through full thickness of board by 3/4".

TP/LD MINIMUM SPACING REQUIREMENTS (IN)	
EDGE DISTANCE LOAD IN ANY DIRECTION	0.625"
END DISTANCE LOAD PERPENDICULAR TO GRAIN	2.625"
SPACING BETWEEN FASTENERS IN A ROW - PERPENDICULAR TO GRAIN	2.625"
SPACING BETWEEN ROW OF FASTENERS - IN-LINE	1.25"

LD PULLOUT VALUES IN STEEL (LB)		
20 GAUGE	18 GAUGE	16 GAUGE
396	606	961

All values shown are ultimate.

Penetration is a minimum of three full threads past the steel.

5/8" minimum spacing and 3/8" minimum edge distance.



ANKIT® FASTENER WITH THERMASTOP® ISOLATION TUBE

PRODUCT SELECTION - DRILL POINT (LD)

PART NUMBER	PART DESCRIPTION	INSULATION + GYPSUM THICKNESS (IN.)	BUCKET QUANTITY (EA.)	BUCKET WEIGHT (LB.)
133070	1.5" ThermaStop® Isolation Tube with 3.5" LD Screw + HCR® Coating	1.5 - 1.625	250	12
133071	2.0" ThermaStop® Isolation Tube with 4.0" LD Screw + HCR® Coating	2.0 - 2.125	250	13
133072	2.5" ThermaStop® Isolation Tube with 4.5" LD Screw + HCR® Coating	2.5 - 2.625	250	14.5
133073	3.0" ThermaStop® Isolation Tube with 5.0" LD Screw + HCR® Coating	3.0 - 3.125	250	16
133074	3.5" ThermaStop® Isolation Tube with 5.5" LD Screw + HCR® Coating	3.5 - 3.625	250	17.5
133158	4.0" ThermaStop® Isolation Tube with 6.0" LD Screw + HCR® Coating	4.0 - 4.125	250	19
133075	4.5" ThermaStop® Isolation Tube with 6.5" LD Screw + HCR® Coating	4.5 - 4.625	250	20.5

PRODUCT SELECTION - THREAD POINT (TP)

PART NUMBER	PART DESCRIPTION	INSULATION + GYPSUM THICKNESS (IN.)	BUCKET QUANTITY (EA.)	BUCKET WEIGHT (LB.)
133159	1.5" ThermaStop® Isolation Tube with 3.5" TP Screw + HCR® Coating	1.5 - 1.625	250	12
133160	2.0" ThermaStop® Isolation Tube with 4.0" TP Screw + HCR® Coating	2.0 - 2.125	250	13
133076	2.5" ThermaStop® Isolation Tube with 4.5" TP Screw + HCR® Coating	2.5 - 2.625	250	14.5
133161	3.0" ThermaStop® Isolation Tube with 5.0" TP Screw + HCR® Coating	3.0 - 3.125	250	16
133077	3.5" ThermaStop® Isolation Tube with 5.5" TP Screw + HCR® Coating	3.5 - 3.625	250	17.5
133162	4.0" ThermaStop® Isolation Tube with 6.0" TP Screw + HCR® Coating	4.0 - 4.125	250	19
133163	4.5" ThermaStop® Isolation Tube with 6.5" TP Screw + HCR® Coating	4.5 - 4.625	250	20.5

ASSEMBLY THICKNESS

The ThermaStop® isolation tube is intended to puncture rigid foam insulation, rigid mineral wool insulation and gypsum sheathing boards. The tube length must be equal to the total thickness of the insulation + gypsum sheathing. The tube will not penetrate but compress against solid substrates such as steel studs, plywood sheathing, MGO sheathing, CMU and concrete.

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