# ANCHORING SOLUTIONS CATALOG



EPOXY | MECHANICAL ANCHORS | ACCESSORIES



### **TABLE OF CONTENTS**

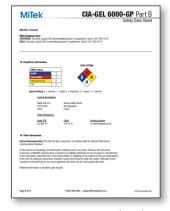
#### **EPOXY**

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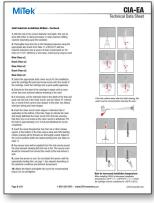
#### **MECHANICAL ANCHORS**

<b>SACH</b> – Screw Anchor
DUC — Undercut Anchor
WAC – Wedge Anchor
SAH — Sleeve Anchor 22-23
DIA — Drop-In Anchor
RHA — Rod Hanger Anchor
HNA — Hammer Nail Anchor
CSHS / CSFP / CSFPW — Concrete Screws
CSKT-6 — Concrete Screw Installation Kit
ADBC / ADBS — Carbide Drill Bits
ATR — All Thread Rod
THR – Threaded Rod
MECHANICAL ANCHOR PRODUCT COMPARISON 2

#### Available Online:



Safety Data Sheets (SDS)



Technical Data Sheets (TDS)



Manufacturers Published Installation Instructions (MPII)

Visit MiTek-US.com/products/Anchoring-Solutions/

for the latest SDS, TDS and MPII sheets.

## **EPOXY**





CIA-GEL 7000-C Epoxy

CIA-GEL 7000-C Epoxy is an adhesive designed to attach threaded anchor rods into concrete that is, or may become, cracked due to cyclic loading from earthquakes or wind. It may also be used with fully grouted CMU construction. It is a low odor, solvent free, non-shrink, non-sag adhesive. The two-component (resin and hardener) epoxy is supplied in equal volume cartridges, which are combined in a 1:1 ratio when dispensed through the attached mixing nozzle. Either a hand powered or air-powered dispenser may be used. The cartridges are sealed with a D-plug which opens easily on the jobsite and allows partially used cartridges to be saved for later use. The epoxy has a two year shelf life when stored in unopened containers at temperatures between 10°C/50°F and 25°C/77°F.

- → Designed for tension and shear loads due to wind or earthquake (ASCE Seismic Design C-F)
- → High Strength: 3/4" ø anchor with 9-3/8" embedment has a seismic LRFD tension capacity of 10,000 lbs in cracked concrete (A193 B7 threaded rod in 15" deep foundation located away from edge, f'c=2,500 psi)
- → 15 minute gel time and 8 hour cure time (between 15°C/59°F to 22°C/72°F) provides convenient installation
- → Use with threaded steel rod or deformed rebar
- The can be installed in dry, saturated or water filled holes
- → No shrinkage
- → Easy to dispense
- → MXDA free (Meta-xylenediamine) and VOC free (volatile organic compounds)

#### **APPLICATIONS**

- Anchors threaded rod or deformed rebar into cracked or uncracked concrete
- → Anchoring All Thread Rod for holdowns into concrete for high seismic zones (SDC C-F)
- Horizontal and overhead anchoring applications (requires special inspection)
- ODE REPORTS: IBC, FL, LA, NSF/ANSI Standard 61 Listed





## BEST FOR SEISMIC APPLICATIONS WITH CRACKED CONCRETE





#### **AVAILABLE SIZES:**

8.5-fl oz – GEL7C-10 20.3-fl oz – GEL7C-22 CIA-GEL 7000-C Epoxy

	CIA-GEL 7000-C						
MiTek Stock No.	MiTek Stock No. GEL7C-10 GEL7C-22						
Size	8.5-fl oz	20.3-fl oz	50.7-fl oz				
Dispensers	MiTek HDT-10 Cox 300ml Manual	MiTek HDT-22 MiTek PDT-22 Newborn 600ml Manual Newborn 600ml Pneumatic	MiTek PDT-56				
Nozzle(s)	7C-SMN	7C-SMN 7C-XLMN	7C-SMN 7C-XLMN				







	THREADED ROD							
Rod Dia. (in)	Hole Dia. (in)	Wire Brush Type	Nozzle Type	Extension Tube (if needed)	Resin Stopper (if needed)			
3/8	1/2	7CHCB-12	7C-SMN	FXT-38	n/a			
1/2	9/16	7CHCB-916	7C-SMN	FXT-38	n/a			
5/8	3/4	7CHCB-34	7C-SMN or 7C-XLMN	FXT-916	ERS-34			
3/4	7/8	7CHCB-78	7C-XLMN	FXT-916	ERS-34			
7/8	1	7CHCB-1	7C-XLMN	FXT-916	ERS-1			
1	1-1/8	7CHCB-118	7C-XLMN	FXT-916	ERS-1			
1-1/4	1-3/8	7CHCB-138	7C-XLMN	FXT-138	ERS-138			



REBAR							
Rebar Size	Hole Dia. (in)	Wire Brush Type	Nozzle Type	Extension Tube (if needed)	Resin Stopper (if needed)		
No 3	9/16	7CHCB-916	7C-SMN	FXT-38	n/a		
No 4	5/8	7CHCB-58	7C-SMN or 7C-XLMN	FXT-38	n/a		
No 5	3/4	7CHCB-34	7C-SMN or 7C-XLMN	FXT-916	ERS-34		
No 6	7/8	7CHCB-1*	7C-XLMN	FXT-916	ERS-34		
No 7	1	7CHCB-118*	7C-XLMN	FXT-916	ERS-1		
No 8	1-1/8	7CHCB-112*	7C-XLMN	FXT-916	ERS-1		
No 10	1-3/8	7CHCB-158*	7C-XLMN	FXT-916	ERS-138		

<sup>\*</sup> Increased brush size required for rebar





Resin Stoppers



Hand Dispensing Tool



Extension Tube



Wire Brush



CIA-GEL 7000 Epoxy

CIA-GEL 7000 Epoxy is a structural adhesive specifically designed to attach threaded anchor rods into fully grouted concrete masonry units (CMU) and evaluated to ICC-ES AC58 for seismic, sustained load, elevated temperature and freeze-thaw suitability conditions. It can also be used to install anchor rods into uncracked concrete and reinforced brick. It is a low odor, solvent free, non-shrink adhesive. The two-component (resin and hardener) epoxy is supplied in equal volume cartridges, which are combined in a 1:1 ratio when dispensed through the attached mixing nozzle. Either a hand-powered or air-powered dispenser may be used. The cartridges are sealed with a D-plug which opens easily on the jobsite and allows partially used cartridges to be saved for later use. The epoxy has a two year shelf life when stored in unopened containers at a temperature of 21°C/70°F.

- Designed for tension and shear loads due to wind or earthquake
- Can also be used for long term static tension and shear loads
- → High Strength: ½" Ø anchor with 4-1/2" embedment has an allowable static tension force over 1,600 lbs (A 307 threaded rod, Grade N CMU)
- → Hardware may be installed and nuts tightened in 6 hours with full cure in 36 hours (between 15°C/61°F to 21°C/70°F)
- Use with threaded steel rod or deformed rebar
- No shrinkage
- → MXDA free (Meta-xylenediamine) and VOC free (volatile organic compounds)

#### **APPLICATIONS**

- → Anchors continuously threaded steel rod and deformed rebar into fully grouted CMU
- Brick veneer anchoring
- Crack injection of medium to wide cracks
- Anchors rebar and threaded steel rod into uncracked concrete
- DODE REPORTS: IBC, FL, LA



**ESR - 1702** 

# BEST FOR APPLICATIONS IN FULLY GROUTED MASONRY





#### **AVAILABLE SIZES:**

8.6-fl oz – GEL7-10 21.2-fl oz – GEL7-22 CIA-GEL 7000 Epoxy

CIA-GEL 7000						
MiTek Stock No.	GEL7-10	GEL7-22				
Size	8.6 -fl oz	21.2-fl oz				
Dispensers	MiTek HDT-10 Cox 300ml manual	MiTek HDT-22 MiTek PDT-22 Newborn 600ml manual Newborn 600ml pneumatic				
Nozzle(s)	7C-SMN	7C-SMN 7C-XLMN				







	THREADED ROD							
Rod Dia. (in)	Hole Dia. (in)	Wire Brush Type	Nozzle Type	Extension Tube (if needed)	Resin Stopper (if needed)			
3/8	1/2	7CHCB-12	7C-SMN	FXT-38	n/a			
1/2	5/8	7CHCB-916	7C-SMN	FXT-38	n/a			
5/8	3/4	7CHCB-34	7C-SMN or 7C-XLMN	FXT-916	ERS-34			
3/4	7/8	7CHCB-78	7C-XLMN	FXT-916	ERS-34			
7/8	1	7CHCB-1	7C-XLMN	FXT-916	ERS-1			
1	1-1/4	7CHCB-118	7C-XLMN	FXT-916	ERS-1			
1-1/4	1-1/2	7CHCB-138	7C-XLMN	FXT-138	ERS-138			



	REBAR						
Rebar Size	Hole Dia. (in)	Wire Brush Type	Nozzle Type	Extension Tube (if needed)	Resin Stopper (if needed)		
No 3	9/16	7CHCB-916	7C-SMN	FXT-38	n/a		
No 4	5/8	7CHCB-58	7C-SMN or 7C-XLMN	FXT-38	n/a		
No 5	3/4	7CHCB-34	7C-SMN or 7C-XLMN	FXT-916	ERS-34		
No 6	7/8	7CHCB-1*	7C-XLMN	FXT-916	ERS-34		
No 7	1	7CHCB-118*	7C-XLMN	FXT-916	ERS-1		
No 8	1-1/8	7CHCB-112*	7C-XLMN	FXT-916	ERS-1		
No 10	1-3/8	7CHCB-158*	7C-XLMN	FXT-916	ERS-138		

<sup>\*</sup> Increased brush size required for rebar

Mixing Nozzles



Resin Stoppers



Hand Dispensing Tool



Extension Tube



Wire Brush



CIA-GEL 6000-GP Epoxy

CIA-GEL 6000-GP is a superior epoxy specifically designed for general purpose structural applications that require quick load times and for doweling applications requiring state DOT approval. It is a two-component [1:1 ratio] adhesive epoxy with 100% solids and is solvent free, moisture insensitive, non-sag and has no odor. It provides exceptional strength in anchoring and doweling applications and can be used in temperatures between  $1^{\circ}\text{C}/35^{\circ}\text{F}$  to  $45^{\circ}\text{C}/110^{\circ}\text{F}$ . The epoxy has a two year shelf life when stored in unopened containers at temperatures between  $4^{\circ}\text{C}/40^{\circ}\text{F}$  to  $35^{\circ}\text{C}/95^{\circ}\text{F}$ .

- Exceptional bond strength: 3,410 psi in 2 days @ 75°F
- → Working Time: 20 minutes @ 75°F
- Doad Time: Can apply 25% Full Load in 2 hours @ 75°F, 100% full load in 24 hours @ 75°F
- > VOC free (volatile organic compounds)

#### **APPLICATIONS**

- Doweling applications for rebar and tie bars for full depth concrete pavement repairs
- Anchoring and bracing for short term tensile load where dynamic, vibratory, wind or intermittent loads exist
- Concrete doweling road repairs where DOT approval is required

#### I CODE REPORTS / STANDARDS

- → AASMTO M235
- DOT Approved in numerous states

# BEST FOR CONCRETE DOWELING APPLICATIONS WHERE DOT APPROVAL IS REQUIRED





#### **AVAILABLE SIZES:**

21.2-fl oz – GEL6GP-22

CIA-GEL 6000-GP Epoxy

CIA-GEL 6000-GP					
MiTek Stock No. GEL6GP-22					
Size	21.2-fl oz				
Dispensers	MiTek HDT-22 MiTek PDT-22 Newborn 600ml manual Newborn 600ml pneumatic				
Nozzle(s)	7C-SMN 7C-XLMN				





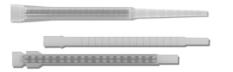
	THREADED ROD							
Rod Dia. (in)	Hole Dia. (in)	Wire Brush Type	Nozzle Type	Extension Tube (if needed)	Resin Stopper (if needed)			
3/8	1/2	7CHCB-12	7C-SMN	FXT-38	n/a			
1/2	5/8	7CHCB-916	7C-SMN	FXT-38	n/a			
5/8	3/4	7CHCB-34	7C-SMN or 7C-XLMN	FXT-916	ERS-34			
3/4	7/8	7CHCB-78	7C-XLMN	FXT-916	ERS-34			
7/8	1	7CHCB-1	7C-XLMN	FXT-916	ERS-1			
1	1-1/4	7CHCB-118	7C-XLMN	FXT-916	ERS-1			
1-1/4	1-1/2	7CHCB-138	7C-XLMN	FXT-138	ERS-138			



	REBAR						
Rebar Size	Hole Dia. (in)	Wire Brush Type	Nozzle Type	Extension Tube (if needed)	Resin Stopper (if needed)		
No 3	9/16	7CHCB-916	7C-SMN	FXT-38	n/a		
No 4	5/8	7CHCB-58	7C-SMN or 7C-XLMN	FXT-38	n/a		
No 5	3/4	7CHCB-34	7C-SMN or 7C-XLMN	FXT-916	ERS-34		
No 6	7/8	7CHCB-1*	7C-XLMN	FXT-916	ERS-34		
No 7	1	7CHCB-118*	7C-XLMN	FXT-916	ERS-1		
No 8	1-1/8	7CHCB-112*	7C-XLMN	FXT-916	ERS-1		
No 10	1-3/8	7CHCB-158*	7C-XLMN	FXT-916	ERS-138		

<sup>\*</sup> Increased brush size required for rebar





Resin Stoppers



Hand Dispensing Tool



Extension Tube



Wire Brush



CIA-EA Epoxy

CIA-EA Adhesive Anchoring System is an epoxy acrylate specifically designed to be a high strength, fast cure structural adhesive for anchoring threaded rod and deformed rebar into uncracked concrete. It has the added advantage of being formulated to be used in colder temperatures (0°C/32°F) while maintaining excellent flowability. CIA-EA may also be used with fully grouted CMU and reinforced brick construction. It is a 2-component, 100% solids, moisture insensitive adhesive that is ideally suited for a wide range of applications. It is composed of a proprietary blend of solvent free epoxy acrylate resin and is backed by independent research and testing. The epoxy has a 15 month shelf life when stored in unopened containers at temperatures between 5°C/41°F to 25°C/77°F.

- → Approved for static, wind and seismic (ASCE Seismic Design A & B) loads for uncracked concrete
- → NSF/ANSI 61 Listed, safe for water treatment projects and other drinking water systems
- → High performance acrylate epoxy cures in 40 minutes (20°C/68°F to 35°C/95°F)
- Partially used cartridges may be resealed for later use
- → All weather formula, can be installed in base material temperature of 0°C/32°F to 35°C/95°F
- Can be installed in damp holes
- → Cartridge fits in a single component dispenser
- > VOC free (volatile organic compound)

#### **APPLICATIONS**

- → Anchor all thread rod into concrete
- May also be used to anchor rebar, started bars and dowels
- Applications requiring fast cure times
- Cold weather applications
- → Can be used in horizontal anchoring applications
- → CODE REPORTS: IBC, NSF/ANSI Standard 61 Listed

# BEST FOR ANCHORING ALL THREADED RODS INTO UNCRACKED CONCRETE IN COLDER TEMPERATURES



**AVAILABLE SIZE:** 9.4-fl oz – EA-10



ESR - 0311



CIA-EA Epoxy

CIA-EA			
MiTek Stock No.	EA-10		
Size	9.4-fl oz		
Dispensers	MiTek HDT-9 Cox 41004-2T 280ml manual		
Nozzle	EA-SMN		





	THREADED ROD							
Rod Dia. (in)	Hole Dia. (in)	Wire Brush Type	Nozzle Type	Extension Tube (if needed)	Resin Stopper (if needed)			
5/16	3/8	EAHCB-516	EA-SMN	n/a	n/a			
3/8	1/2	EAHCB-38	EA-SMN	FXT-38	n/a			
1/2	9/16	EAHCB-12	EA-SMN	FXT-38	n/a			
5/8	3/4	EAHCB-916	EA-SMN	FXT-916	ERS-34			
3/4	7/8	EAHCB-34	EA-SMN	FXT-916	ERS-34			
1	1-1/8	EAHCB-1	EA-SMN	FXT-916	ERS-1			





Resin Stoppers



Hand Dispensing Tool



Wire Brush



Extension Tube



INCREDI-BOND® Epoxy

Incredi-Bond® is a high strength two-component epoxy specifically designed to be a bonding agent for almost all household materials including wood, steel, concrete, brick, stone and CMU block. It is moisture insensitive and can also be used to fill cracks in concrete, block and stone. The epoxy has a 2 year shelf life when stored in unopened containers in dry conditions between 4°C/40°F to 32°C/90°F.

- → High Strength (over 1,000 psi bond strength in 2 days)
- Quick initial Cure (2 hours at 24°C/75° F)
- → Convenient 30 minute working time
- Trowelable, sandable, paintable
- Cures in damp environments
- → Recommended for installation between 4°C/40°F to 38°C/100°F
- → 100% solvent free system means low VOC content

#### **APPLICATIONS**

- Bonding applications for:
  - → Concrete
  - → Brick
  - → CMU block
  - → Stone
  - → Metal
  - → Wood
- Repair vertical and overhead cracks in concrete (non-structural)
- → Repair vertical and overhead spalls in concrete (5/8" deep & 3" diameter max)
- Non-sag, no-drip consistency makes this ideal for corner repairs to concrete and block walls, overhead patching and repairs
- → Repair and replace brick
- → Replace pool tile (no need to empty pool)
- → Fill holes and cracks
- → Not recommended for structural applications

## BEST FOR MULTI-PURPOSE MAINTENANCE, REPAIR & OVERHAUL PROJECTS



**AVAILABLE SIZE:** 8.6-fl oz – IB-9

**ACCESSORIES** Epoxy

	T00LS	
MiTek Stock No.	Description	Qty/Box
PDT-22	Pneumatic Dispensing Tool 21oz	1
HDT-10	Hand Dispensing Tool 10oz	1
HDT-9	Hand Dispensing Tool 9oz	1
HDT-28	Hand Dispensing Tool 28oz	1
	BRUSHES	
MiTek Stock No.	Description	Qty/Box
NB129	1/2" Nylon Brush	20
NB3412	3/4" Nylon Brush	1
NB118	1" Nylon Brush	1
	AIR NOZZLE EXTENSION	
MiTek Stock No.	Description	Qty/Box
AN18	18" Air Nozzle Extension	1
	INJECTION PORTS	
MiTek Stock No.	Description	Qty/Box
CCP	Corner Port	1
CINOZ	1/4" x 13" Injection Nozzel	1
CIP	Injection Port	1
СРНА	Port Hose Adapter	1
	WIRE MESH SCREEN TUBES	
MiTek Stock No.	Description	Qty/Box
CST1215	1/2" x 15" Seismic Screen Tube	50
CST151608	15/16" x 8" Seismic Screen Tube	50
CST151617	15/16" x 17" Seismic Screen Tube	50
CST3415	3/4" x 15" Seismic Screen Tube	50
CST5815	5/8" x 15" Seismic Screen Tube	50
	OVERHEAD HOLE PLUGS	
MiTek Stock No.	Description	Qty/Box
HP12	1/2" Hole Plug	1
HP58	5/8" Hole Plug	1
HP34	3/4" Hole Plug	1
HP78	7/8" Hole Plug	1
HP1	1" Hole Plug	1
HP118	1-1/8" Hole Plug	1
HP114	1-1/4" Hole Plug	1
HP138	1-3/8" Hole Plug	1

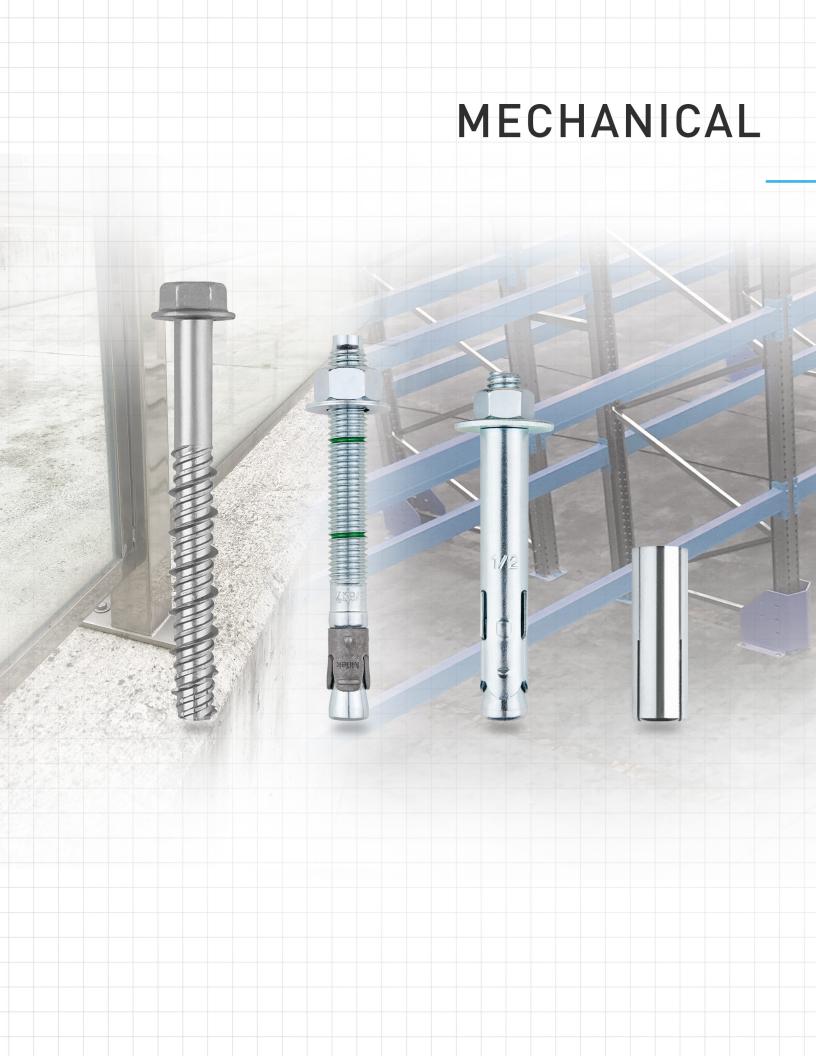




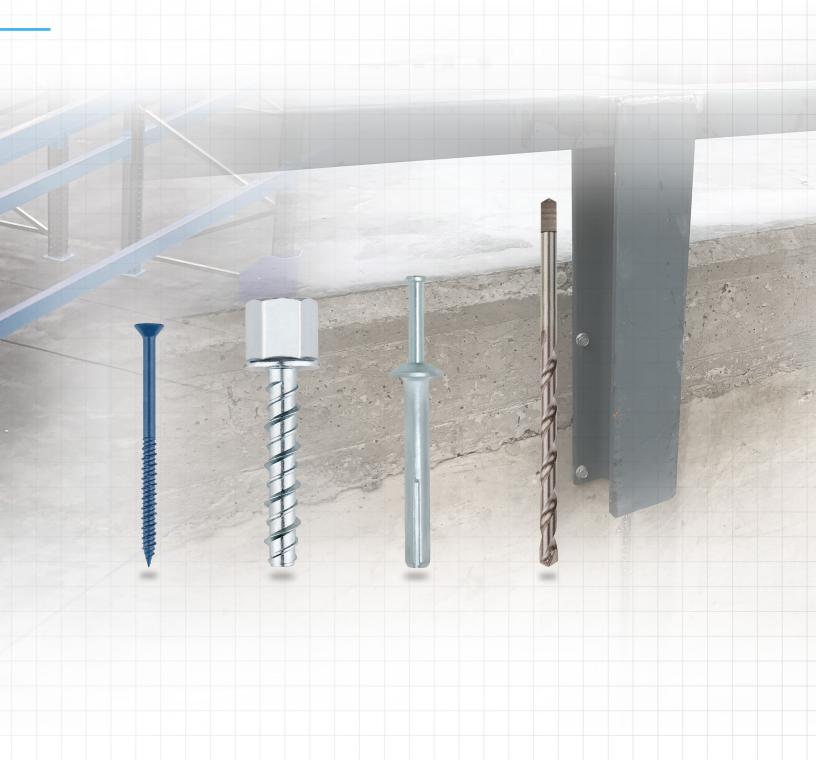








## ANCHORING



Mitek PRO SERIES\*

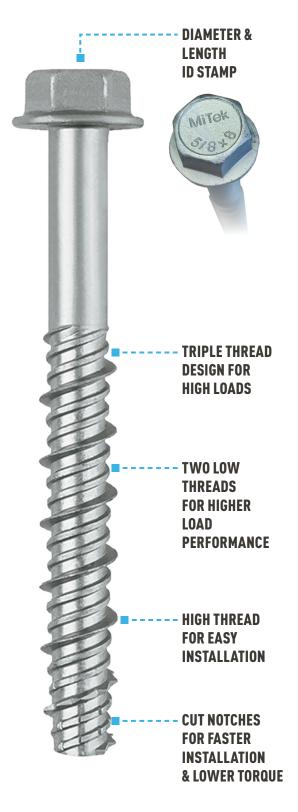
- Screw anchor for temporary or permanent attachment to uncracked and cracked concrete
- No special drill bit required; install using standard-sized ANSI tolerance drill bits
- Code evaluated to IBC/IRC in accordance with ICC-ES AC193 and ACI 355.2 for cracked and uncracked concrete
- → Approved for use in wind and seismic applications
- → Fully removable for temporary anchoring or applications where fixtures may need to be moved (e.g. formwork, bracing)
- Suitable for closer edge distance or tight spacing applications
- → CODE REPORTS: IBC, FL, LA (3/8", 1/2", and 5/8" sizes)











- → Structural fixings in cracked and uncracked concrete
- → Formwork and fixing
- → Racking and shelving
- → Attaching railings, handrails, ledgers and sill plates
- → Fixings of steel beams, channels, boilers, signals, stadium seatings, façade substructures, etc.

#### INSTALLATION

## 1. DRILL 2. BLOW & CLEAN

Drill a hole into the base material of the correct diameter and depth found in ICC-ES ESR-4419 using a drill bit that meets the requirements of ANSI B212.15-1994.



Remove dust and debris from hole using a blow bulb, compressed air or vacuum to remove the loose particles left from drilling.



Select a powered impact wrench that does not exceed impact driver or a torque maximum torque impact wrench torque rating or a torque wrench that is able to be set to the maximum installation torque found in ICC-ES ESR-4419. Attach an after installation. Do not appropriate sized hex socket spin the hex socket off the to the wrench. Mount the screw anchor head in the socket



Drive the anchor with an wrench through the fixture and into the hole until the anchor head washer comes in contact with the fixture. the anchor must be snug anchor to disengage.







See detailed installation and design instructions at MiTek-US. com to ensure proper installation and to reduce risk failure which could result in injury and/or property damage. MiTek will not be liable for any anchor failure due to defective substrate material or improper installation

					Minimum	Maximum	Uncracked	Concrete	Cracked (	Concrete	0.4.1.	Pieces	
Size (in)	MiTek Stock No.	Ref. No.	Drill Bit Dia. (in)	Head Size (in)	Anchor Embedment (in)	Installation Torque (ft-lbs)	Allowable Tension (lbs)	Allowable Shear (lbs)	Allowable Tension (lbs)	Allowable Shear (lbs)	Ordering MiTek Stock No.	per Selling Unit	Unit per Master Carton
5/16 x 2-1/4	SACH516214-EXT		5/16	1/2	1-1/2	10	1235	1330			SACH516214-EXTR20	20	6
5/16 x 3	SACH516300-EXT		5/16	1/2	2	10	1235	1330			SACH516300-EXTR20	20	6
3/8 x 3	SACH038300-EXT	THD37300HMG	3/8	9/16	2-1/2	35	1885	1955	1190	1280	SACH038300-EXTR10	10	6
3/8 x 4	SACH038400-EXT	THD37400HMG	3/8	9/16	2-1/2	35	1885	1955	1190	1280	SACH038400-EXTR10	10	4
3/0 X 4	3AUHU304UU-EXT	THD37400HWIG	3/0	9/10	2-1/2	33	1000	1900	1190	1200	SACH038400-EXTR40F	40	1
1/2 x 4	SACH012400-EXT	THD50400HMG	1/2	3/4	3	45	2465	2655	1535	2065	SACH012400-EXTR20F	20	1
1/2 x 5	SACH012500-EXT	THD50500HMG	1/2	3/4	3	45	2465	2655	1535	2065	SACH012500-EXTR20F	20	1
1/2 x 6	SACH012600-EXT	THD50600HMG	1/2	3/4	3	45	2465	2655	1535	2065	SACH012600-EXTR20	20	3
1/2 X 0	3ACHU12000-EX1	THDSOOODHING	1/2	3/4	٥	45	2400	2000	1333	2000	SACH012600-EXTR20F	20	1
5/8 x 6	SACH058600-EXT	THD62600HMG	5/8	15/16	3-1/4	85	2415	2605	1710	1845	SACH058600-EXTR10	10	3
3/8 X B	SAURUSOOUU-EXT	I I I DO ZOUUNING	5/8	15/16	3-1/4	83	2410	2000	1710	1040	SACH058600-EXTR12F	12	1
E/0 v C 1/0	CACHOEOG10 EVE	THD62612HMG	5/8	15/16	3-1/4	85	2415	2605	1710	1845	SACH058612-EXTR10	10	3
5/8 x 6-1/2	SACH058612-EXT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3/8	15/16	3-1/4	83	2410	2000	1710	1843	SACH058612-EXTR10F	10	1
E/0 v 0	CACHOEGOOD EVE	TUDCOGOGUMC	F/0	15/10	3-1/4	85	0415	2005	1710	1045	SACH058800-EXTR8	8	
5/8 x 8	SACH058800-EXT	THD62800HMG	5/8	15/16	3-1/4	83	2415	2605	1710	1845	SACH058800-EXTR8F	8	1

- 1) Example Allowable Stress Design (ASD) values include an approximate safety factor of 4.
- 2) Values based on single anchor installations and do not consider critical edge distance or spacing. For full design information on 3/8", 1/2", and 5/8" sizes refer to ICC-ES ESR-4419.
- 3) Values in table assume concrete strength f'c = 4,000 psi.
- 4) ASD values derived from the assumption of a single anchor with 30% dead load and 70% live load, and a controlling load combination of 1.2D+ 1.6L.
- 5) Values are for shear or tension only and do not work for a combination of such.

- DUC Undercut design provides consistent expansion and is easy to set. Stress risers have been eliminated to prevent tearing
- □ Large bearing area provides exceptional performance even in lower strength concrete
- Thick walled sleeves transfer load over a larger area which insures predictable ductile performance
- ASTM A36 or A193 grade B7 rods are used. Full ultimate steel strength of the threaded stud is developed at listed embedment and spacing. Stainless steel is also available
- Installation is simple. It is similar to installing a typical expansion anchor; no coring drills are necessary. Creation of proper undercut is correctly done and easily verified using DUC Undercut Bits. Creation of undercut takes only seconds
- → CODE REPORTS: IBC, FL, LA







- → Structures where human safety is paramount
- → Mounting motors, fans, gates, guard rails and machinery
- → Steel fixtures, such as ladders and staircases
- → Curtain walls and other cladding
- → Shockproof connections



See detailed installation and design instructions at MiTek-US.com to ensure proper installation and to reduce risk failure which could result in injury and/or property damage. MiTek will not be liable for any anchor failure due to defective substrate material or improper installation

#### INSTALLATION

#### 1. DRILL



Drill the hole to proper depth and diameter per specifications using rotohammer and stop drill.

#### 2. CLEAN



Clean the hole using a blow-out bulb or compressed air.

#### 3. UNDERCUT



Insert the undercut bit and start rotohammer. Undercutting is complete when the stopper sleeve is fully compressed (gap closed).

#### 4. CLEAN



Clean the hole again using a blow-out bulb or compressed air.

#### 5. EXPAND



Insert anchor into hole. Place setting sleeve over anchor and drive the expansion sleeve over the expansion coupling.

#### 6. VERIFY



Verify that the setting mark is visible on the threaded rod

#### 7. TORQUE



Apply proper torque.

MiTek Stock No.	Rod Dia. d <sub>b</sub> (in)	Anchor Length I <sub>b</sub> (in)	Expansion Coupling Dia. d <sub>c</sub> (in)	Drilled Hole Depth of Stop Bit (in)	Effective Embedment h <sub>ef</sub> (in)	Allowable Tensile Capacity (Lbs.)	Allowable Shear Capacity (Lbs.)
DUC38-275L		5-1/2		3-1/8	2-3/4	2280	2245
DUC38-275LT	3/8		5/8				
DUC38-400H		6-3/4		4-3/8	4	4910	4855
DUC38-400HT							
DUC12-400L		7		4-1/4	4	4170	4110
DUC12-400LT		·			·		
DUC12-500H	1/2	8	3/4	5-1/4	5	7365	
DUC12-500HT	1/2		3/4	3-1/4	3	7505	8855
DUC12-675H		9-3/4		7	6-3/4	8990	0033
DUC12-675HT		3-3/4			0-3/4	0990	
DUC58-450L		7-3/4		5	4-1/2	6290	6560
DUC58-450LT		7-3/4		5	4-1/2	0290	0300
DUC58-750H	5/8	10-3/4	1	8	7-1/2	13530	
DUC58-750HT	3/6	10-3/4	'	0	7-1/2	13330	14110
DUC58-900H		12-1/4		9-1/2	9	14015	14110
DUC58-900HT		12-1/4		9-1/2	9	14315	
DUC34-500L		8-5/8		5-7/8	5	7365	9685
DUC34-500LT	3/4	0-0/6	1-1/8	3-7/0	5	7300	9000
DUC34-1000H	3/4	13-5/8	1-1/0	10-7/8	10	20830	20875
DUC34-1000HT		13-3/6		10-7/6	10	20030	20070

Allowable tensile and shear capacities are for anchors installed at standard edge distance and spacing in uncracked concrete in accordance with the 2018 IBC and referenced ACI documents.

<sup>2)</sup> See ICC-ES ESR-1970 for additional information.

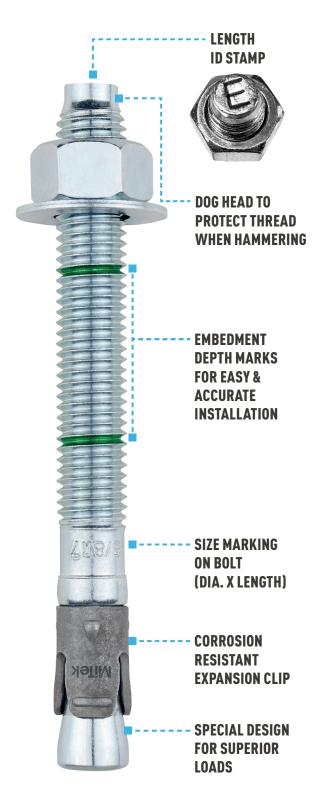
- → Length ID code stamped on head of each anchor
- Unique anchor design allows for expansion clip re-engagement under tensile loading
- Code evaluated to IBC/IRC in accordance with ICC-ES AC193 and ACI 355.2 for cracked and uncracked concrete
- → Approved for use in wind and seismic applications
- → CODE REPORTS: IBC, FL, LA, UL (3/8" & 1/2" sizes)









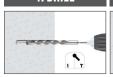




- → Structural connections, i.e., beam and column anchorage
- → Interior applications / low level corrosion environment
- → Overhead applications, i.e., cable trays and strut, pipe supports, fire sprinklers
- → Safety barriers
- → Fixing billboards, boilers, signals, advertising hoardings, etc.
- → Installation of sprinkler systems



# INSTALLATION 1. DRILL 2. BLOW & CLEAN 3. INSTALL 4. APPLY TORQUE



Drill a hole into the base material of the correct diameter and depth found in ICC-ES ESR-4298 using a drill bit that meets the requirements of ANSI B212.15-1994.



Remove dust and debris from hole using a blow bulb, compressed air or vacuum to remove the loose particles left from drilling.



Position the washer on the anchor and thread on the nut. If installing through a fixture drive the anchor through the fixture into the hole. Be sure the anchor is driven until the corresponding green mark depth is leveled with the base material surface.



Tighten the anchor with a torque wrench by applying the required installation torque found in ICC-ES ESR-4298. Note: the threaded stud will draw up during the tightening of the nut; the expansion wedge [clip] remains in the original position.



See detailed installation and design instructions at MiTek-US. com to ensure proper installation and to reduce risk failure which could result in injury and/or property damage. MiTek will not be liable for any anchor failure due to defective substrate material or improper installation

						Minimum	Required	Uncracked	Concrete	Cracked C	Concrete		Pieces	Selling
Size (in)	MiTek Stock No.	Ref. No.		Drill Bit Dia. (in)			Installation Torque (ft-lbs)	Allowable	Allowable Shear (lbs)	Allowable Tension (lbs)	Allowable Shear (lbs)		per Selling Unit	Unit per Master Carton
												WAC014214-R10	10	6
1/4 x 2-1/4	WAC014214	STB2-25214	В	1/4	7/16	1-3/4	5	804	428			WAC014214-R25	25	4
												WAC014214-R100F	100	1
												WAC038214-R15	15	6
3/8 x 2-1/4	WAC038214	WA37214	В	3/8	9/16	1-5/8	30	865	1005	595	710	WAC038214-R50	50	3
												WAC038214-R50F	50	1
												WAC038300-R25	25	4
3/8 x 3	WAC038300	STB2-37300, WA37300	D	3/8	9/16	2-3/8	30	1745	1255	1200	1255	WAC038300-R50	50	3
												WAC038300-R50F	50	1
												WAC038334-R15	15	6
3/8 x 3-3/4	WAC038334	STB2-37334, WA37334	E	3/8	9/16	2-3/8	30	1745	1255	1200	1255	WAC038334-R50	50	3
		II/10/00/										WAC038334-R40F	40	1
3/8 x 5	WAC038500	STB2-37500,	н	3/8	9/16	2-3/8	30	1745	1255	1200	1255	WAC038500-R15	15	4
3/0 X 3	WAC038300	WA37500	"	3/8	9/16	2-3/8	ე ას	1740	1200	1200	1200	WAC038500-R30F	30	1
												WAC012234-R15	15	4
1/2 x 2-3/4	WAC012234	WA50234	С	1/2	3/4	2-3/8	45	1790	2030	1335	1435	WAC012234-R25F	25	1
												WAC012334-R25F	25	1

- 1) Example Allowable Stress Design (ASD) values include an approximate safety factor of 4.
- 2) Values based on single anchor installations and do not consider critical edge distance or spacing. For full design information on 3/8" and 1/2" dia. sizes, refer to ICC-ES ESR-4298.
- 3) Values in table assume concrete strength f'c = 4,000 psi.
- 4) ASD values derived from the assumption of a single anchor with 30% dead load and 70% live load, and a controlling load combination of 1.2D+ 1.6L.
- 5) Values are for shear or tension only and do not work for a combination of such.

- Versatile use in medium-duty uncracked concrete applications
- Anti-spin raised point on sleeve for hassle free installation
- → Through-fixture fastening
- Sleeve design keeps anchor centered in hole
- → Drill hole conditions: Dry, Wet, Water Filled









- → For static and quasi-static loads
- → Interior applications / low level corrosion environment
- → Non-structural applications in uncracked concrete
- → For fixing shelves, panels, gates, railings
- → Theater seating

#### INSTALLATION



Drill a hole into the base material of the correct diameter and depth using a drill bit that meets the requirements of ANSI B212.15-1994.



Remove dust and debris from hole using a blow bulb, compressed air or vacuum to remove the loose particles left from drilling.



Insert the anchor until the head is at the same level of the fixture surface. Use a hammer if needed. Installation must be performed through the fixture.



Apply the nominal torque specified in applicable tables.
Use torque wrench in order to ensure correct

installation.





See detailed installation and design instructions at MiTek-US. com to ensure proper installation and to reduce risk failure which could result in injury and/or property damage. MiTek will not be liable for any anchor failure due to defective substrate material or improper installation

				T	Minimum	Minimum	Required	Uncracked	Concrete	Oudouina	Pieces	_
Size (in)	MiTek Stock No.	Ref. No.	Drill Bit Dia. (in)	Torque Wrench Size (in)	Anchor Embedment (in)	Edge Distance (in)	Installation Torque (ft-lbs)	Allowable Tension (lbs)	Allowable Shear (lbs)	Ordering MiTek Stock No.	per Selling Unit	Unit per Master Carton
5/16 x 1-1/2	SAH516112	SL3112H	5/16	7/16	1-1/4	2-1/2	8	690	670	SAH516112-R100F	1	100
5/16 x 2-1/2	SAH516212	SL31212H	5/16	7/16	1-1/4	2-1/2	8	690	670	SAH516212-R100F	1	100
3/8 x 1-7/8	SAH038178	SL37178H	3/8	1/2	1-1/2	3	14	880	1100	SAH038178-R25	25	3
3/0 X 1-1/0	3A11030170	SL3717011	3/0	1/2	1-1/2	3	14	000	1100	SAH038178-R50F	1	50
3/8 x 3	SAH038300	SL37300H	3/8	1/2	1-1/2	3	14	880	1100	SAH038300-R50	50	3
3/0 X 3	3A11030300	3L3730011	3/0	1/2	1-1/2	3	14	000	1100	SAH038300-R50F	1	50
1/2 x 2-1/4	SAH012214	SL50214H	1/2	9/16	1-7/8	4	20	1145	1580	SAH012214-R25	25	3
1/2 X Z-1/4	5A11012214	313021411	1/2	3/10	1-770	4	20	1143	1300	SAH012214-R40F	1	40
1/2 x 3	SAH012300	SL50300H	1/2	9/16	1-7/8	4	20	1145	1580	SAH012300-R10	10	6
1/2 X 3	3AH012300	3L3030011	1/2	9/10	1-770	4	20	1145	1300	SAH012300-R25	25	3
1/2 x 4	SAH012400	SL50400H	1/2	9/16	1-7/8	4	20	1145	1580	SAH012400-R25	25	3
1/4 1/4	3AHU12400	3L30400H	1/2	9/10	1-7/0	4		1143	1300	SAH012400-R30F	1	30
5/8 x 4-1/4	SAH058414	SL62414H	5/8	3/4	2	5	48	1180	1580	SAH058414-R20F	1	20
5/8 x 6	SAH058600	SL62600H	5/8	3/4	2	5	48	1180	1580	SAH058600-R15F	1	15

- 1) Example Allowable Stress Design (ASD) values include an approximate safety factor of 4.
- Values based on single anchor installations and do not consider critical edge distance or spacing. For full design information refer to MiTek-US.com.
- 3) Edge distance based on ACl318-14 section 17.7, designer shall verify distance is twice the maximum aggregate size and comply with section 20.6.1.
- 4) Values in table assume concrete strength f'c = 4,000 psi.

- → Versatile use in medium-duty uncracked concrete applications
- Allows for installation prior to the material to be fixed
- Rod attachment may be removed leaving a smooth finish
- Simple installation with MiTek's setting tool











- → Threaded rod attachment may be removed leaving a flush finish
- → Fixing threaded rods
- → Flush mounting applications

#### INSTALLATION



Drill a hole into the base material of the correct diameter and depth using a drill bit that meets the requirements of ANSI B212.15-1994.



Remove dust and debris from hole using a blow bulb, compressed air or vacuum to remove the loose particles left from drilling.



Insert the anchor in the hole completely. Use hammer if necessary.

The anchor must not setting tool stand proud of the surface of the base material.



4. EXPAND ANCHOR

Insert the setting tool into the inner cone of the anchor. Hammer until the setting tool is level with the anchor.



Put the material to be fixed inserting the bolt or stud through holes. Use a bolt with the correct length. Wide washers are recommended. Do not introduce any materials between the material to be fixed and the washer (sealants, etc.). Apply the nominal torque using dynamometric wrench.





See detailed installation and design instructions at MiTek-US.com to ensure proper installation and to reduce risk failure which could result in injury and/or property damage. MiTek will not be liable for any anchor failure due to defective substrate material or improper installation

#### **LOAD TABLE**

							Uncracked Concrete		Pieces	Selling
Size (in)	MiTek Stock No.	Ref. No.	Drill Bit Dia. (in)	Minimum Anchor Embedment (in)	Minimum Edge Distance (in)	Maximum Installation Torque (ft-lbs)	Allowable Tension (lbs)	Ordering MiTek Stock No.	per Selling Unit	Unit per Master Carton
3/8 x 1-9/6	DIA0381916	DIAB37	1/2	1-9/16	5	12	978	DIA0381916-CR10	10	6
3/0 X 1-9/0	DIAUSOTSTU	DIADO	1/2	1-9/10	J	12	970	DIA0381916-R100F	1	100
1/2 x 2	DIA012200	DIAB50	5/8	2	6-1/4	28	1482	DIA012200-CR10	10	6
1/2 X Z	DIA012200	DIADOU	3/6	2	0-1/4	20	1402	DIA012200-R75F	1	75

- 1) Example Allowable Stress Design (ASD) values include an approximate safety factor of 4.
- 2) Values based on single anchor installations and do not consider critical edge distance or spacing. For full design information refer to MiTek-US.com.
- 3) Edge distance based on ACl318-14 section 17.7, designer shall verify distance is twice the maximum aggregate size and comply with section 20.6.1.
- 4) Values in table assume concrete strength f'c = 4,000 psi.

#### **SETTING TOOL**

Size (in)	MiTek Stock No.	Ref. No.	Ordering MiTek Stock No.	Pieces per Selling Unit	Selling Unit per Master Carton
3/8	DIAST38	DIAST37, DIABST37	DIAST38-R15F	1	15
1/2	DIAST12	DIAST50, DIABST50	DIAST12-R20F	1	20



SETTING TOOL

(MUST BE ORDERED SEPARATELY)

- → Rod Hanger Anchor for temporary or permanent attachment to uncracked concrete
- No special drill bit required; install using standard-sized ANSI tolerance drill bits
- Fully removable for temporary anchoring or applications where fixtures may need to be moved
- Suitable for closer edge distance or tight spacing applications when compared to expansion anchor types









- → Fixing suspended ceilings, electrical conduit pipe or ventilation duct work
- → Threaded rod attachment may be removed
- → Fixing threaded rods

#### INSTALLATION



Drill a hole into the base material of the correct diameter and depth using a drill bit that meets the requirements of ANSI B212.15-1994.

Remove dust and debris from hole using a blow bulb, compressed air or vacuum to remove the loose particles left from drilling.

Attach an appropriate sized Drive the anchor with an hex socket to the drill or wrench. Set drill to drill setting. Mount the screw anchor head in the socket.

impact driver or a torque wrench into the hole until the anchor head washer comes in contact with the base material. The anchor must be snug after installation.



See detailed installation and design instructions at MiTek-US.com to ensure proper installation and to reduce risk failure which could result in injury and/or property damage. MiTek will not be liable for any anchor failure due to defective substrate material or improper installation

						Minimum	Minimum	Maximum	Uncracked Concrete		Pieces	Selling
	MiTek		Drill Bit	Threaded Rod	Wrench	Anchor Embedment	Edge Distance	Installation Torque	Allowable	Ordering MiTek	per Selling	Unit per Master
Size (in)	Stock No.	Ref. No.	Dia. (in)	Size (in)	Size (in)	(in)	(in)	(ft-lbs)	Tension (lbs)	Stock No.	Unit	Carton
1/4 x 1-5/8	RHA014158	THD25112RHP1	1/4	1/4	3/8	1-5/8	1-1/2	20	618	RHA014158-R100F	1	100
3/8 x 1-5/8	RHA038158	THD37212HP1	1/4	3/8	1/2	1-5/8	1-1/2	20	618	RHA038158-R50F	1	50
1/2 x 2-3/4	RHA012234	THD50234HP1	5/16	1/2	11/16	2-3/4	1-7/8	25	1310	RHA012234-R30F	1	30

- 1) Example Allowable Stress Design (ASD) values include an approximate safety factor of 4.
- 2) Values based on single anchor installations and do not consider critical edge distance or spacing. For full design information refer to MiTek-US.com.
- 3) Edge distance based on ACl318-14 section 17.7, designer shall verify distance is twice the maximum aggregate size and comply with section 20.6.1.
- 4) Values in table assume concrete strength f'c = 4,000 psi.

- → Fast and easy installation
- → Mushroom head design
- No special drill bits required; installation using standard-sized ANSI tolerance drill bits
- → For a variety of anchoring needs
- → Permanent tamper-proof fastening









- → Metal door frames and thresholds
- → Interior electrical applications
- → Light fixtures
- → Window frame installations
- → Hand rails
- → Wood furring strip attachment

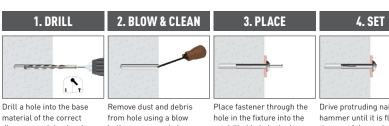






See detailed installation and design instructions at MiTek-US. com to ensure proper installation and to reduce risk failure which could result in injury and/or property damage. MiTek will not be liable for any anchor failure due to defective substrate material or improper installation

#### INSTALLATION



diameter and depth using a drill bit that meets the requirements of ANSI B212.15-1994.

bulb, compressed air or vacuum to remove the loose particles left from drilling.

predrilled hole in the base material until the flat side of the head rest of the fixture.

Drive protruding nail with a hammer until it is flush with the cap of the anchor.

				Minimum	Minimum	Uncracked	Concrete	Oud sais a	Pieces	Selling
Size (in)	MiTek Stock No.	Ref. No.	Drill Bit Dia. (in)	Anchor Embedment (in)	Edge Distance (in)	Allowable Tension (lbs)	Allowable Shear (lbs)	Ordering MiTek Stock No.	per Selling Unit	Unit per Master Carton
1/4 x 1-1/2	HNA014112		1/4	3/4	2-1/2	275	255	HNA014112-CR15	15	6
1/4 X 1-1/2	IIIIAU14112		1/4	1	2-1/2	335	310	HNA014112-CR40	40	6
1/4 x 2	HNA014200		1/4	1-1/4	2-1/2	395	365	HNA014200-CR15	15	6
								HNA014300-CR15	15	6
1/4 x 3	HNA014300		1/4	1-1/2	2-1/2	405	375	HNA014300-CR25	25	6
								HNA014300-CR40	40	6

- 1) Example Allowable Stress Design (ASD) values include an approximate safety factor of 4.
- 2) Values based on single anchor installations and do not consider critical edge distance or spacing. For full design information refer to MiTek-US.com.
- 3) Edge distance based on ACl318-14 section 17.7, designer shall verify distance is twice the maximum aggregate size and comply with section 20.6.1.
- 4) Values in table assume concrete strength f'c = 4,000 psi.

- For use in light-duty uncracked concrete applications
- → Multiple head styles available for a majority of fixture anchoring needs
- Thread design allows for reduced installation torque and increased pullout performance
- → White finish screws ideal for a discreet appearance



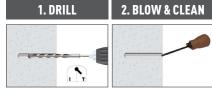






- → Metal door frames and thresholds
- → Interior electrical applications
- → Light fixtures
- → Window frame installations
- → Hand rails
- → Wood furring strip attachment

#### INSTALLATION



Drill a hole into the base material of the correct diameter and depth using a drill bit that meets the requirements of ANSI B212.15-1994.



Remove dust and debris from hole using a blow bulb, compressed air or vacuum to remove the loose particles left from drilling.



Select the socket or Phillips bit to be used. Insert the head of the anchor into the hex head socket or Phillips head driver. Set the drill motor to the "rotation only" mode.



Place the point of the anchor through the fixture into the predrilled hole and drive the anchor in one steady continuous motion until it is fully seated on the fixture at the proper embedment.

DO NOT OVERDRIVE.







See detailed installation and design instructions at MiTek-US. com to ensure proper installation and to reduce risk failure which could result in injury and/or property damage. MiTek will not be liable for any anchor failure due to defective substrate material or improper installation

#### LOAD TABLE

						Min.	Min.	Uncracke	d Concrete		Pieces	Selling
Size (in)	Head Style	Color	MiTek Stock No.	Ref. No.	Bit Size	Anchor Embed. (in)	Edge Distance (in)	Allowable Tension (lbs)	Allowable Shear (lbs)	Ordering MiTek Stock No.	per Selling Unit	Unit per Master Carton
										CSFP316114-CR8	8	8
	Phillips	Blue	CSFP316114	TTN18114PF,	#2	1-1/8	1-1/8	190	335	CSFP316114-CR25	25	6
3/16 x 1-1/4	Flat	Diue	0377310114	TTN2-18114PF	#2	1-1/6	1-1/6	190	333	CSFP316114-CR75	75	6
3/10 X 1-1/4										CSFP316114-R225	225	6
	Hex Slot	Blue	CSHS316114	TTN1814H,	1/4"	1-1/8	1-1/8	190	335	CSHS316114-CR8	8	8
	nex Siot	Diue	G000010114	TTN2-18114H	1/4	1-1/6	1-1/6	190	333	CSHS316114-CR75	75	6
										CSFP316134-CR8	8	8
		Blue	CSFP316134	TTN18134PF,	#2	1-5/8	1-1/8	425	350	CSFP316134-CR25	25	6
		Diue	6377310134	TTN2-18134PF	#2	1-5/6	1-1/0	425	330	CSFP316134-CR75	75	6
	Phillips Flat									CSFP316134-R225	225	6
3/16 x 1-3/4	···ut	White	CSFPW316134	TTNW18134PF, TTN2W18134PF	#2	1-5/8	1-1/8	425	350	CSFPW316134-CR75	75	6
	Hex Slot	Blue	CSHS316134	TTN1813H, TTN2-18134H	1/4"	1-5/8	1-1/8	425	350	CSHS316134-CR75	75	6

- 1) Example Allowable Stress Design (ASD) values include an approximate safety factor of 4.
- 2) Values based on single anchor installations and do not consider critical edge distance or spacing. For full design information refer to MiTek-US.com.
- 3) Edge distance based on ACl318-14 section 17.7, designer shall verify distance is twice the maximum aggregate size and comply with section 20.6.1.
- 4) Values in table assume concrete strength f'c = 4,000 psi.

NOTE: 3/16" diameter requires 5/32" drill bit.

**CONTINUED ON NEXT PAGE** →

#### LOAD TABLE

						Min.	Min.	Uncracke	d Concrete		Pieces	Selling
Size (in)	Head Style	Color	MiTek Stock No.	Ref. No.	Bit Size	Anchor Embed. (in)	Edge Distance (in)	Allowable Tension (lbs)	Allowable Shear (lbs)	Ordering MiTek Stock No.	per Selling Unit	Unit per Master Carton
										CSFP316214-CR8	8	8
		Divo	CCED216214	TTN18214PF,	#2		1 1/0	625	250	CSFP316214-CR25	25	6
3/16 x 2-1/4	Phillips	Blue	CSFP316214	TTN2-18214PF	#2	2	1-1/8	635	350	CSFP316214-CR75	75	6
3/10 X Z-1/4	Flat									CSFP316214-R225	225	4
		White	CSFPW316214	TTNW18214PF, TTN2W18214PF	#2	2	1-1/8	635	350	CSFPW316214-CR75	75	6
										CSFP316234-CR8	8	8
		Blue	CSFP316234	TTN18234PF,	#2	2	1-1/8	635	350	CSFP316234-CR25	25	6
	Phillips	Diue	0377310234	TTN2-18234PF	#2		1-1/0	033	330	CSFP316234-CR75	75	6
3/16 x 2-3/4	Flat									CSFP316234-R225	225	4
3/10 X 2-3/4		White	CSFPW316234	TTNW18234PF,	#2	2	1-1/8	635	350	CSFPW316234-CR25	25	6
		Wille	0317 W310234	TTN2W18234PF	#2	2	1-1/0	000	330	CSFPW316234-CR75	75	6
	Hex Slot	Blue	CSHS316234	TN18234H,	1/4"	2	1-1/8	635	350	CSHS316234-CR25	25	6
	TIEX SIUL	Diue	03113310234	TTN2-18234H	1/4	2	1-1/0	000	330	CSHS316234-CR75	75	6
3/16 x 3-1/4	Phillips	Blue	CSFP316314	TTN18314PF,	#2	2	1-1/8	635	350	CSFP316314-CR8	8	8
3/10 X 3-1/4	Flat	Diue	0317310314	TTN2-18314PF	#2		1-1/0	000	330	CSFP316314-CR75	75	6
	Phillips Flat	Blue	CSFP014114	TTN25114PF, TTN2-25114PF	#3	1-1/8	1-1/2	200	365	CSFP014114-CR8	8	8
1/4 x 1-1/4										CSHS014114-CR8	8	8
	Hex Slot	Blue	CSHS014114	TTN2-25114H	5/16"	1-1/8	1-1/2	200	365	CSHS014114-CR75	75	6
										CSHS014114-R225	225	6
										CSFP014134-CR8	8	8
		Blue	CSFP014134	TTN25134PF, TTN2-25134PF	#3	1-5/8	1-1/2	480	585	CSFP014134-CR25	25	6
	Phillips Flat			2010111						CSFP014134-CR75	75	6
1/4 x 1-3/4		White	CSFPW014134		#3	1-5/8	1-1/2	480	585	CSFPW014134-CR8	8	8
										CSHS014134-CR8	8	8
	Hex Slot	Blue	CSHS014134	TTN2-25134H	5/16"	1-5/8	1-1/2	480	585	CSHS014134-CR75	75	6
										CSHS014134-R225	225	4
	Phillips	Blue	CSFP014214	TTN25214PF,	#3	2-1/8	1-1/2	815	585	CSFP014214-CR8	8	8
1/4 v 2 1/4	Flat	Diue	0311014214	TTN2-25214PF	#3	2-1/0	1-1/2	010	300	CSFP014214-CR75	75	6
1/4 x 2-1/4	Hex Slot	Blue	CSHS014214	TTN25214H,	5/16"	2-1/8	1-1/2	815	585	CSHS014214-CR8	8	8
	TIEX SIOL	Diue	03113014214	TTN2-25214H	3/10	2-1/0	1-1/2	013	303	CSHS014214-CR75	75	6
										CSFP014234-CR8	8	8
		Blue	CSFP014234	TTN25234PF,	#3	2-1/8	1-1/2	815	585	CSFP014234-CR25	25	6
	Phillips	Diue	USFFU14234	TTN2-25234PF	#3	2-1/0	1-1/2	010	363	CSFP014234-CR75	75	6
	Flat									CSFP014234-R150	150	4
1/4 x 2-3/4		White	CSFPW014234	TTNW25234PF,	#3	2-1/8	1-1/2	815	585	CSFPW014234-CR8	8	8
1/4 A Z-3/4		wille	0011 WU14204	TTN2W25234PF	#3	۷-1/0	1-1/2	010	J00	CSFPW014234-CR75	75	6
										CSHS014234-CR8	8	8
	Hex Slot	Blue	CSHS014234	TTN25234H,	5/16"	2-1/8	1-1/2	815	585	CSHS014234-CR25	25	6
	HEX SIUL	Diue	USHSU14234	TTN2-25234H	3/10	2-1/0	1-1/2	010	300	CSHS014234-CR75	75	6
										CSHS014234-R150	150	4

<sup>1)</sup> Example Allowable Stress Design (ASD) values include an approximate safety factor of 4.

NOTE: 3/16" diameter requires 5/32" drill bit; 1/4" diameter requires 3/16" drill bit.

<sup>2)</sup> Values based on single anchor installations and do not consider critical edge distance or spacing. For full design information refer to MiTek-US.com.

<sup>3)</sup> Edge distance based on ACI318-14 section 17.7, designer shall verify distance is twice the maximum aggregate size and comply with section 20.6.1.

<sup>4)</sup> Values in table assume concrete strength f'c = 4,000 psi.

#### LOAD TABLE

						Min.	Min.	Uncracked	d Concrete		Pieces	Selling
Size (in)	Head Style	Color	MiTek Stock No.	Ref. No.	Phillips Bit	Anchor Embed. (in)	Edge Distance (in)	Allowable Tension (lbs)	Allowable Shear (lbs)	Ordering MiTek Stock No.	per Selling Unit	Unit per Master Carton
1/4 x 3-1/4	Phillips Flat	White	CSFPW014314	TTNW25314PF, TTN2W25314PF	#3	2-1/8	1-1/2	815	585	CSFPW014314-CR75	75	6
1/4 X 3-1/4	Hex Slot	Blue	CSHS014314	TTN25314H,	5/16"	2-1/8	1-1/2	815	585	CSHS014314-CR8	8	8
	nex Siot	Diue	USHSU14314	TTN2-25314H	3/10	2-1/0	1-1/2	010	303	CSHS014314-CR75	75	6
										CSFP014334-CR8	8	6
		Blue	CSFP014334	TTN25334PF, TTN2-25334PF	#3	2-1/8	1-1/2	815	585	CSFP014334-CR25	25	6
	Phillips Flat			11112 2000 111						CSFP014334-CR75	75	6
1/4 x 3-3/4		White	CSFPW014334	TTNW25334PF, TTN2W25334PF	#3	2-1/8	1-1/2	815	585	CSFPW014334-CR75	75	6
	Hex Slot	Blue	CSHS014334	TTN25334H,	5/16"	2-1/8	1-1/2	815	585	CSHS014334-CR8	8	6
	nex Siot	Diue	USHSU14334	TTN2-25334H	3/10	2-1/0	1-1/2	010	303	CSHS014334-CR75	75	6
	Phillips	Blue	CSFP014400	TTN25400PF,	#3	2-1/8	1-1/2	815	585	CSFP014400-CR8	8	6
1/4 x 4	Flat	Diue	G3FP014400	TTN2-25400PF	#3	2-1/0	1-1/2	010	300	CSFP014400-CR50	50	6
1/4 x 4	Hex Slot	Blue	CSHS014400	TTN25400H, TTN2-25400H	5/16"	2-1/8	1-1/2	815	585	CSHS014400-CR25	25	6
1/4 x 5	Hex Slot	Blue	CSHS014500	TTN25500H, TTN2-25500H	5/16"	2-1/8	1-1/2	815	585	CSHS014500-CR25	25	6

- 1) Example Allowable Stress Design (ASD) values include an approximate safety factor of 4.
- Values based on single anchor installations and do not consider critical edge distance or spacing. For full design information refer to MiTek-US.com.
- 3) Edge distance based on ACl318-14 section 17.7, designer shall verify distance is twice the maximum aggregate size and comply with section 20.6.1.
- 4) Values in table assume concrete strength f'c = 4,000 psi.

NOTE: 1/4" diameter requires 3/16" drill bit.

#### CONCRETE SCREW INSTALLATION KIT (CSKT-6)

- → Rapid Change drill bit and drive tool
- Ombination drill bit with slide over driver extension for quick work
- → Works with any hammer drill

Screw Dia. (in)	Drill Bit Dia. (in)	Hex Bit (in)	Phillips Bit
3/16	5/32	1/4	#2
1/4	3/16	5/16	#3



**KIT INCLUDES:** Driver Sleeve / Drill Bit Adapter / #2 and #3 Phillips Bits / 1/4" and 5/16" Hex Drivers / Hex Key / Carry Pouch

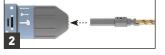
#### INSTALLATION



Place the correct MiTek® drill bit in drill adapter and tighten set with included hex key.



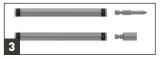
Drill hole 1/4" deeper than depth of anchor embedment and clean dust from hole.



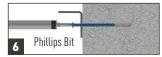
Secure drill adapter into 3/8"-1/2" chuck of hammer drill.



Connect driver sleeve over drill bit and secure onto drill adapter.



Attach desired Hex or Phillips bit into end of sleeve.



With the appropriately attached bit drive the MiTek screw into the predrilled hole.



With the appropriately attached bit drive the MiTek screw into the predrilled hole.

- Standardized shank types for attachment to common drills
- Carbide tip allows for higher quantity of holes per drill bit
- Omplies with ANSI B212.15-1994









Drill Bit Dia. (in) <sup>1,2</sup>	Overall Length (in)	MiTek Stock No.	Shank Type	Drilling Depth (in)	Pieces per Selling Unit	Selling Unit per Master Carton
	3-1/2	ADBC532312-DC1	Straight shank	2-1/8	1	15
	4-1/2	ADBC532412-DC1	Straight shank	2-7/8	1	15
5/32	4-1/2	ADBC532412-DC4	Straight shank	2-7/8	4	15
	5-1/2	ADBC532512-DC1	Straight shank	3-3/8	1	15
	7	ADBSDS5327000-DC1	HEX shank SDS plus	3-3/8	1	25
	4-1/2	ADBC316412-DC1	Straight shank	2-7/8	1	15
3/16		ADBC316412-DC4	Straight shank	2-7/8	4	15
	7	ADBSDS3167000-DC1	HEX shank SDS plus	3-3/8	1	25
1/4	7	ADBSDS0147000-DC1	HEX shank SDS plus	3-3/8	1	25
3/8	8	ADBSDS0388000-DC1	SDS plus	5-1/4	1	15
1/2	10	ADBSDS0121000-DC1	SDS plus	6-3/4	1	15
5/8	10	ADBS0581000-DC1	SDS plus	6-3/4	1	15

<sup>1) 5/32&</sup>quot; dia. drill bit/driver suitable for 3/16" dia. MiTek CSHS concrete screw.

<sup>2)</sup> 3/16" dia. drill bit/driver suitable for 1/4" dia. MiTek CSHS concrete screw.



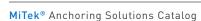
- → Continuously threaded low carbon steel rod may be used for anchoring MiTek's holdowns, tension ties and wood structural panel shear walls to concrete
- □ Can be used for many other general purpose tension transfer fastening needs

#### INSTALLATION

ATR All Thread Rod can be cast-in-place or epoxied into concrete. Use MiTek's CIA-EA epoxy acrylate or CIA-GEL 7000-C epoxy when installed as a post installed application and follow the published installation instructions to obtain maximum strength. Use CIA-GEL 7000 when installing into fully grouted CMU block wall.

	Plain	Zinc Plated		
Dia. x L	MiTek	MiTek		
(in)	Stock No.	Stock No.		
3/8 x 5	ATR385	ATR385-ZP		
3/8 x 8	ATR388	ATR388-ZP		
3/8 x 10	ATR3810	ATR3810-ZP		
3/8 x 12	ATR3812	ATR3812-ZP		
3/8 x 16	ATR3816	ATR3816-ZP		
3/8 x 18	ATR3818	ATR3818-ZP		
3/8 x 24	ATR3824	ATR3824-ZP		
3/8 x 36	ATR3836	ATR3836-ZP		
3/8 x 48	ATR3848	ATR3848-ZP		
3/8 x 72	ATR3872			
1/2 x 5	ATR125	ATR125-ZP		
1/2 x 8	ATR128	ATR128-ZP		
1/2 x 10	ATR1210	ATR1210-ZP		
1/2 x 12	ATR1212	ATR1212-ZP		
1/2 x 16	ATR1216	ATR1216-ZP		
1/2 x 18	ATR1218	ATR1218-ZP		
1/2 x 24	ATR1224	ATR1224-ZP		
1/2 x 36	ATR1236	ATR1236-ZP		
1/2 x 48	ATR1248	ATR1248-ZP		
1/2 x 72	ATR1272			
5/8 x 5	ATR585	ATR585-ZP		
5/8 x 8	ATR588	ATR588-ZP		
5/8 x 10	ATR5810	ATR5810-ZP		
5/8 x 12	ATR5812	ATR5812-ZP		
5/8 x 16	ATR5816	ATR5816-ZP		
5/8 x 18	ATR5818	ATR5818-ZP		
5/8 x 24	ATR5824	ATR5824-ZP		
5/8 x 36	ATR5836	ATR5836-ZP		
5/8 x 48	ATR5848	ATR5848-ZP		
5/8 x 72	ATR5872			
3/4 x 5	ATR345	ATR345-ZP		
3/4 x 8	ATR348	ATR348-ZP		
3/4 x 10	ATR3410	ATR3410-ZP		
3/4 x 12	ATR3412	ATR3412-ZP		
3/4 x 16	ATR3416	ATR3416-ZP		
3/4 x 18	ATR3418	ATR3418-ZP		
3/4 x 24	ATR3424	ATR3424-ZP		
3/4 x 36	ATR3436	ATR3436-ZP		
3/4 x 48	ATR3448	ATR3448-ZP		
3/4 x 72	ATR3472			

	Plain	Zinc Plated		
Dia. x L	MiTek	MiTek		
(in)	Stock No.	Stock No.		
3/4 x 5	ATR345	ATR345-ZP		
3/4 x 8	ATR348	ATR348-ZP		
3/4 x 10	ATR3410	ATR3410-ZP		
3/4 x 12	ATR3412	ATR3412-ZP		
3/4 x 16	ATR3416	ATR3416-ZP		
3/4 x 18	ATR3418	ATR3418-ZP		
3/4 x 24	ATR3424	ATR3424-ZP		
3/4 x 36	ATR3436	ATR3436-ZP		
3/4 x 48	ATR3448	ATR3448-ZP		
3/4 x 72	ATR3472			
7/8 x 5	ATR785	ATR785-ZP		
7/8 x 8	ATR788	ATR788-ZP		
7/8 x 10	ATR7810	ATR7810-ZP		
7/8 x 12	ATR7812	ATR7812-ZP		
7/8 x 16	ATR7816	ATR7816-ZP		
7/8 x 18	ATR7818	ATR7818-ZP		
7/8 x 24	ATR7824	ATR7824-ZP		
7/8 x 36	ATR7836	ATR7836-ZP		
7/8 x 48	ATR7848	ATR7848-ZP		
7/8 x 72	ATR7872			
1 x 5	ATR15	ATR15-ZP		
1 x 8	ATR18	ATR18-ZP		
1 x 10	ATR110	ATR110-ZP		
1 x 12	ATR112	ATR112-ZP		
1 x 16	ATR116	ATR116-ZP		
1 x 18	ATR118	ATR118-ZP		
1 x 24	ATR124	ATR124-ZP		
1 x 36	ATR136	ATR136-ZP		
1 x 48	ATR148	ATR148-ZP		
1 x 72	ATR172			
1-1/8 x 5	ATR1185	ATR1185-ZP		
1-1/8 x 8	ATR1188	ATR1188-ZP		
1-1/8 x 10	ATR11810	ATR11810-ZP		
1-1/8 x 12	ATR11812	ATR11812-ZP		
1-1/8 x 16	ATR11816	ATR11816-ZP		
1-1/8 x 18	ATR11818	ATR11818-ZP		
1-1/8 x 24	ATR11824	ATR11824-ZP		
1-1/8 x 36	ATR11836	ATR11836-ZP		
1-1/8 x 48	ATR11848	ATR11848-ZP		
1-1/8 x 72	ATR11872			



- → Secures 2x sill plate to the foundation using epoxied threaded rods
- → Provides accurate location and alignment of the rod and eliminates the need to coordinate cast-in-place anchor rods
- → ASTM A36 hot-dip galvanized threaded rod can be ordered in 1/2" or 5/8" diameters
- ⇒ 5/8" diameter rod is available in two (2) lengths for anchor applications involving lighter uplift loads
- → Nuts and washers are included



Install into wet concrete with nut embedded or drill minimum 1/16" – 1/8" oversized hole depending on rod size and secure with anchor epoxy.

MiTek Stock No. Sill Plate Ap	Bolt Dia. plication	L (in)				
THR125-HDG	1/2	5				
THR126-HDG	1/2	6				
THR128-HDG	1/2	8				
THR588-HDG	5/8	8				
Uplift Application <sup>1</sup>						
THR5812-HDG	5/8	12				
THR5816-HDG	5/8	16				

1) Contact MiTek for appropriate embedment length for your application.







## MECHANICAL ANCHOR PRODUCT COMPARISON

This Product Comparison Chart is intended for general guidance only and should not be used as the only basis to substitute specified products without verification.

Туре	MiTek Series	Sim	pson	DeWalt / Powers			Red Head		
Screw Anchor	SACH, SACH-EXT	Titan HD		Screw Bolt+		Screw Bolt+		Large Diameter Tapcon (LDT) Anchor	
Wedge Anchor	WAC	Strong-Bolt 2	Wedge-All	Domestic Wedge Anchor			Power-Stud SD2	Trubolt	Trubolt+
Sleeve Anchor	SAH	Sleev	Sleeve-All LOK-BOLT AS Power Bolt + Dyna		LOK-BOLT AS Power Bolt +		aBolt		
Drop-In Anchor	DIA	DIA	DIAB	Steel Dropin			Multi-Set II		
Concrete Screw	CSHS, CSFP, CSFPW	Titen	Titen 2	ULTRACON + Tapper +		Тар	ocon		
Drive Pin Anchor	HNA	Zinc Nailon		Zamac Nailin		Hamn	nerset		
Rod Hanger Anchor	RHA	Titen HD Rod H	Threaded langer	Rod Hanger Lok-Bolt As Hangermate+				-	
Anchor Drill Bits	ADBC, Adbsd	MDPL	MDB	DW			Red Head Drill Bits		

### **EPOXY PRODUCT COMPARISON**

This Product Comparison Chart is intended for general guidance only and should not be used as the only basis to substitute specified products without verification.

	MiTek EPOXY	SIMPSON	REDHEAD	POWERS	HILTI
Cracked Concrete	Miles CAGEL POOC OF PO	SET-XP / ET-HP / AT-XP	Constitution of the control of the c	PE1000+ / Pure110 AC100+	HY 200 / RE 500-SD
Masonry	Miles CIA-GEL 70000	SET / AT-XP / AT	TO PROVIDE TO STATE OF THE PRO	Pure50+	HY 70 / HY 150
DOT & General Purpose	Milek CIA-GEL 6000-GP	EDOT	To de la constitución de la cons	AC50 Silver	HEX
Uncracked Concrete	MICK CA-EA	AT	N/A	T308+	HY 100 / HY 150

#### **RETURNS:**

Materials returned for credit or exchange will be accepted only under the following conditions:

- 1. Only full cartons of products may be returned.
- 2. All returns must be in saleable conditions.
- 3. Materials must be current, cataloged, under warranty and purchased within 90 days of return. Returning materials for credit or exchange are subject to a minimum restocking charge of 15% if returned within 30 days of purchase and 25% if returned between 30 and 90 days after purchase. The restocking charge may be increased, in the sole discretion of MiTek, to include other fees incurred by MiTek in connection with the return, such as any fees incurred in repackaging the materials or in both cases plus any freight expenses originally incurred by MiTek in the delivery of said materials.
- 4. Any returned epoxies or adhesives must have a minimum of 12 months remaining shelf life at time of the return.
- 5. Customer must provide the invoices that reflect the price and amount of products to be returned. Prior to returning any product to MiTek, Customer must obtain MiTek approval and a return goods authorization number from MiTek. Freight carrier and routing must also be approved by MiTek.
- 6. Materials received by MiTek without prior approval and authorization number will be returned, freight collect, to the Customer. Return goods authorization number must be printed on outer carton.
- 7. All transportation charges must be paid by Customer. If MiTek determines the product to be defective, Customer's account will be credited, including the appropriate freight charges.

Specials, custom orders and discontinued products, defined at the sole discretion of MiTek, cannot be returned. CIA-GEL 7000 products may not be returned. Epoxy and Adhesive Products are <u>not eligible</u> for inventory re-balancing options.

#### **DISCLAIMERS/WARRANTY:**

MiTek warrants to the Buyer that this product is in good quality and conforms to the manufacturer's specifications in force on the date of manufacture and when used in accordance with the Manufacturers Published Installation Instructions (MPII's) and when stored as directed in the technical literature. Manufacturer cannot warrant or guarantee any particular method of use, performance or application under any particular condition and Buyer is responsible for determining the suitability of intended purpose and assumes all risks therein. MiTek shall not be liable for any injury, loss, cost of labor or consequential damages either directly, indirectly or incidentally arising out of the use or misuse of any product sold by MiTek or another distributor. If the product is proven to be in nonconformance, the Buyers sole remedy shall be a refund of the purchase price or replacement of product.













1-800-328-5934 MiTek-US.com

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