



CANDORR

# CANDORR ANCHORING SYSTEM



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# CANDORR Chemical Anchoring System

(Make - Taiwan)

## CANDORR 2150SR : ANCHORING SYSTEM IN CARTRIDGES

### Product Description

**CANDORR 2150SR** is a two-component specialized Polyester based 8:1 resin supplied in cartridges.

### Product Volume in Cartridges

CANDORR 2150SR (360ml)



### Features

- ➔ High pull strength.
- ➔ Excellent thixotropic property, no sagging for ceiling and vertical wall anchoring installation.
- ➔ Good for all types of substrate such as concrete, rock, ALC or hollow material etc.
- ➔ Broad temperature for processing, from -5°C~40°C.

### Applications

- ➔ Anchoring installation for new construction where steel bar or bolts are not pre-embedded.
- ➔ Re-construction of old building, column expanding, etc.
- ➔ Excellent bonding with concrete and steel bar.
- ➔ No pressing against concrete, pull strength higher than embedded steel.
- ➔ Suitable for column, floor, concrete walls, etc.

### Gel Time and Cure Time

Temp	0~5°C	5~10°C	10~20°C	20~30°C	30~40°C
Gel Time	3hr	16min	12min	8min	3min
Cure Time	4hr	3hr	2hr	1hr	30min

### Cartridge Installation Procedure



1. Open top of cartridges.



2. Use CANDORR nozzles after remove red stopper from the cartridge and attach the mixing nozzles, please screw down tight.



3. Pull Injector out at maximum range.



4. Install the Cartridge on gun properly



5. Screw mixing nozzle onto cartridge and dispense 2-3 trigger pulls of adhesive to waste until color is red with no streaks.

# CANDORR 2150SR TECHNICAL INFORMATION

## 1 SOLID SUBSTRATE REBAR INSTALLATION DETAILS

Pressure		Destroy Haul Strength		Safety Haul Strength		Working Standard (mm)	
		kgf	kN	kgf	kN	Hole Diameter	Hole Depth
Rebar No.	# 3 (Φ10)	3,070	31.0	1,023	10.0	13	90
	# 4 (Φ12)	4,920	49.7	1,640	16.6	16	120
	# 5 (Φ16)	6,800	68.7	2,267	22.9	20	145
	# 6 (Φ20)	7,708	77.9	2,569	25.9	25	170
	# 7 (Φ22)	9,440	95.4	3,147	31.8	28	200
	# 8 (Φ25)	13,620	137.6	4,540	45.9	32	225
	# 9 (Φ28)	20,340	205.6	6,780	68.5	37	250
	# 10 (Φ32)	26,620	269.0	8,873	89.6	40	290

- Remarks:
1. Concrete Strength  $f_c'$ : 280kg/cm<sup>2</sup> (4,000 psi)
  2. Rebar Strength: #3~#5  $f_y$ : 2,800 kgf/cm<sup>2</sup>, #6~#11  $f_y$ = 4,200 kgf/cm<sup>2</sup>

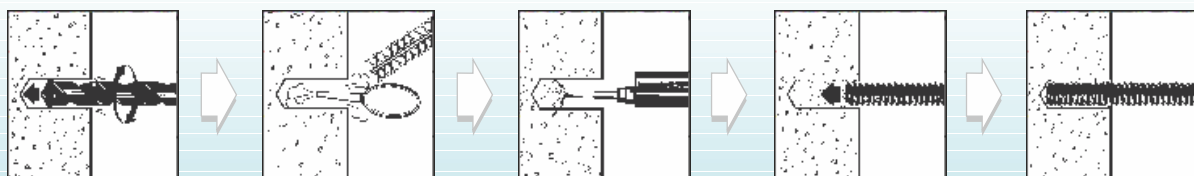
## 2 SOLID SUBSTRATE THREAD ROD INSTALLATION DETAILS

Pressure		Destroy Haul Strength		Safety Haul Strength		Working Standard (mm)	
		kgf	kN	kgf	kN	Hole Diameter	Hole Depth
Thread Rod No.	M8	2,249	22.7	750	7.6	13	90
	M10	3,150	31.8	1,050	10.6	13	90
	M12	4,501	45.5	1,500	15.2	16	120
	M16	5,402	54.6	1,801	18.2	20	145
	M20	6,752	68.2	2,251	22.7	25	170
	M24	13,134	132.7	4,378	44.2	28	210
	M30	24,556	248.0	8,185	82.7	35	270
	M36	35,373	357.3	11,791	119.1	40	330

- Remarks:
1. Concrete Strength  $f_c'$ : 280kg/cm<sup>2</sup> (4,000 psi)
  2. Thread Rod Strength: #3-5 $f_y$ :2800kgf/cm<sup>2</sup>, #6-#11 $f_y$ =kgf/cm<sup>2</sup>

## 3 ANCHORING RESIN INJECTION PROCEDURE

- (1) Cause of failure: steel failure ( in concrete strength classes >M20/25 the ultimate failure loads are not found to be appreciably higher)
- (2) Mean failure loads applying to dry anchoring base on condition that careful drill hole cleaning is carried out with a brush



- (1) Drill hole on substrate to the depth required.
- (2) Clean, blow out all dust completely.
- (3) Insert resin outward from the bottom.
- (4) Insert reinforcing bar or threaded stud with rotary action.
- (5) Cure and aging.

# CANDORR SR500 : STYRENE-FREE ANCHORING SYSTEM IN CARTRIDGES

## Product Description

CANDORR SR500 : is a two-component specialized Pure Epoxy 3:1 high performance resin Supplied in Cartridges

## Product Volume in Cartridges

CANDORR SR500 (400ml)



## Features

- Fixing machines, hardrails, steel constructions, wooden Contructions, reinforcement bars, especially suitable for big diameter rebar and rods.
- Bonding threaded rods, chemical anchor bolts and reinforcing bars into hardened concrete.
- Suitable to resist loads in cracked or uncracked concrete base material for cases where anchor desing theory and criteria applies.
- Can be installed in a wide range of base material temperatures. Medium & Heavy duty load applications High durability.
- Ideal for indoor & Outdoor usage.

## Applications

- High grip force, high adhesive force.
- Longer working time
- Designed for use with chemical anchor bolt, threaded rods and reinforcing bars hardwae elements.
- Special application to diamond to diamond drilled holes and large bore diameter.
- The product ingredient is odorless and non-toxic.
- Orange color can be easily detected or monitored.
- Wide temperature for processing, from 0 degree celsius to 40 degreeCelsius.
- Styrene free.
- Suitable for wet as well as dry conditions.
- Good for all types of substrate such as concrete, rock, ALC or hollow material.

## Gel Time and Cure Time

Temp	0~5°C	5~10°C	10~20°C	20~30°C	30~40°C
Gel Time		2hr	1hr	30min	15min
Cure Time	30hr	15hr	12hr	4hr	3hr

Full cure is achieved after 24 hours.

## Cartridge Installation Procedure



1. Open top of cartridges.



2. Use CANDORR nozzles after remove red stopper from the cartridge and attach the mixing nozzles, please screw down tight.



3. Pull Injector out at maximum range.



4. Install the Cartridge on gun properly



5. Screw mixing nozzle onto cartridge and dispense 2-3 trigger pulls of adhesive to waste until color is red with no streaks.

# CANDORR SR500 TECHNICAL INFORMATION

## 1 SOLID SUBSTRATE REBAR INSTALLATION DETAILS

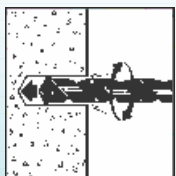
Pressure		Destroy Haul Strength		Safety Haul Strength		Working Standard (mm)	
Thread Rod No.		kgf	kN	kgf	kN	Hole Diameter	Hole Depth
	10 Ø	3,607	36.4	1,202	12.1	13	90
	12 Ø	6,409	64.7	2,136	21.8	16	125
	16 Ø	9,695	97.9	3,232	32.6	20	145
	20 Ø	13,655	137.9	4,552	46.0	25	170
	22 Ø	18,672	188.6	6,224	62.9	28	200
	25 Ø	24,032	242.7	8,011	80.9	32	225
	28 Ø	27,364	276.4	9,121	92.1	37	260
	32 Ø	31,730	320.5	10,577	106.8	40	290
36 Ø	35,843	362.1	11,948	120.7	42	320	

## 2 SOLID SUBSTRATE THREAD ROD INSTALLATION DETAILS

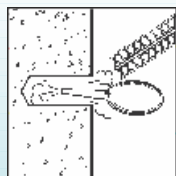
Pressure		Destroy Haul Strength		Safety Haul Strength		Working Standard (mm)	
Thread Rod No.		kgf	kN	kgf	kN	Hole Diameter	Hole Depth
	M8	2,338	23.6	779	7.9	10	80
	M10	3,150	31.8	1,050	10.6	13	90
	M12	4,951	50.0	1,650	16.7	16	120
	M16	6,595	66.6	2,198	22.2	20	145
	M20	11,958	120.8	3,986	40.3	25	170
	M24	17,352	175.3	5,784	58.4	28	210
	M30	28,605	288.9	9,535	96.3	35	270
	M36	33,050	333.8	11,017	111.3	40	330

## 3 ANCHORING RESIN INJECTION PROCEDURE

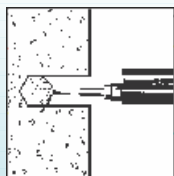
- (1) Cause of failure: steel failure ( in concrete strength classes >M20/25 the ultimate failure loads are not found to be appreciably higher)
- (2) Mean failure loads applying to dry anchoring base on condition that careful drill hole cleaning is carried out with a brush



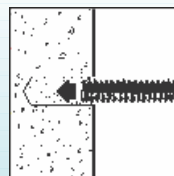
(1) Drill hole on substrate to the depth required.



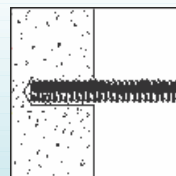
(2) Clean, blow out all dust completely.



(3) Insert resin outward from the bottom.



(4) Insert reinforcing bar or threaded stud with rotary action.



(5) Cure and aging.

# CANDORR CHEMICAL ANCHORING CAPSULE CANDORR CHEMICAL ANCHOR BOLT

## ANCHORING SYSTEM IN CAPSULES



Candorr Resin Capsules



Chemical Anchor Bolt

### Product Description

This is a specialized epoxy acrylate based resin supplied in capsules.

### Candorr Anchoring Resin Capsules size

Product name	Length ( mm )
CANDORR M8	75
CANDORR M10	85
CANDORR M12	95
CANDORR M16	95
CANDORR M20	175
CANDORR M24	215

### Candorr Anchor Bolts Size

Product name	Length ( mm )
CANDORR M8	110
CANDORR M10	130
CANDORR M12	160
CANDORR M16	165
CANDORR M16	190
CANDORR M20	260
CANDORR M 24	300
CANDORR M 30	380

Various size are available on request

### Features

- ➔ High pull strength.
- ➔ Good for all types of substrate such as concrete, rock, ALC.
- ➔ Broad temperature for processing, from 0°C~40°C.
- ➔ Anchor bolt: ISO898 6.8 grade, galvanized to mi. 5 microns.

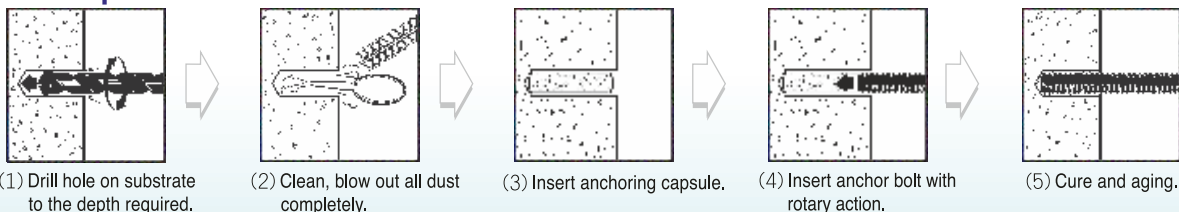
### Gel Time and Cure Time

Temp	0-5°C	10°C	20°C	25°C	30°C	40°C
Gel Time	60 min	35 min	8 min	5 min	3 min	90 min
Cure Time	3 hrs	2 hrs	40 min	30 min	20 min	10 min

### Applications

- ➔ Anchoring installation for new construction where steel bar or bolts are not pre-embedded.
- ➔ Bonding concrete to concrete.
- ➔ Re-construction of old building, column expanding, etc.
- ➔ Excellent bonding with concrete and steel bar.
- ➔ No pressing against concrete, pull strength higher than embedded steel.
- ➔ Suitable for column, floor, concrete walls, etc.

### ANCHORING Capsule Installation Procedure



### Spacing Recommendation

Size of capsule	M10	M12	M16	M20	M 24	M 30
Minimum anchor spacing(mm)	45	55	65	85	110	135
Minimum edge distance (mm)	45	55	65	85	110	135
Max. fixing thickness(mm)	30	40	45	50	50	60

## Mechanical Strength on Concrete

Working Load	Ultimate Tensile Load (Kg)	Recommended Tensile Load (Kg)			Recommended Shear Load (Kg)	Drilled Hole Dimension (mm)	
		3,000 psi	4,000 psi	5,000 psi		Diameter	Depth
Concrete Strength	4,000 psi	3,000 psi	4,000 psi	5,000 psi	Steel quality 6.8 grade	Diameter	Depth
M10	3,215	1,010	1,072	1,132	1,216	12	90
M12	4,442	1,389	1,481	1,566	1,779	14	110
M16	6,796	2,134	2,265	2,401	3,512	18	125
M20	11,158	3,505	3,720	3,942	5,097	25	170
M24	17,748	5,586	5,916	6,302	8,001	28	220

1. The above measurements is obtained from single rod in non-crack concrete.
2. Specified recommended tensile load only applies to carefully cleaned and dry drilled holes.
3. Ultimate load measurements are conducted under room temperature.



# CANDORR STEEL ANCHORING SYSTEM

## CANDORR TS BULLET ANCHOR FASTENER : DROP-IN ANCHOR

CANDORR DROP-IN ANCHOR Fasteners are female concrete anchors designed for anchoring into concrete. Drop the anchor into the predrilled hole in the concrete. Using a setting tool expands the anchor within the hole in the concrete. They are internally threaded, allowing the mounting hardware to be removed easily while leaving the anchor in place. These are used for applications such as Overhead hangers with threaded rod, Handrails, Shelving, Light fixtures, Machinery etc. It is Suitable for solid brick, light concrete, hollow core concrete chambers and timber. It comes with internal tapering to enable the anchor to expand and to self lock the suspension rod into position. The body is knurled for improved performance

These are available in two standard finishes: -  
- White zinc plated and, Yellow zinc plated.



Internal thread size (mm)	Drill dia. in concrete (mm)	Anchor Length L (mm)	Hole depth in concrete ho (mm)	Working load in concrete 30 N/mm <sup>2</sup>				Edge distance c (mm)	Anchor spacing s (mm)
				Safe Static Load (KN)		Ultimate Load (KN)			
				- Tension	Shear	Tension	Shear		
6	8	25	27	1.50	1.30	6.00	5.20	80	95
8	10	30	32	2.50	2.00	10.00	8.00	90	110
10	12	40	42	3.30	3.00	13.00	12.00	125	150
12	16	50	52	5.00	20.00	20.00	18.00	150	180
16	20	65	67	8.50	34.00	24.00	28.00	200	235
20	25	80	82	11.00	44.00	44.00	36.00	250	290

This Products are available in various standard sizes

# CANDORR MECHANICAL ANCHOR FASTENER (WEDGE ANCHOR)

CANDORR MECHANICAL ANCHOR FASTENER (also called wedge anchor/ heavy duty concrete anchor) is suitable to use in concrete to medium to heavy load. These anchors are inserted into a predrilled hole and then expanded, causing them to wedge securely in the concrete. The one-piece clip is formed around anchor, assuring full expansion for dependable & superior holding power. It is economical for wide range of fastening application and is ideal for pipe suspension, foundation work, Aluminium glazing systems, window support systems. These concrete wedge anchors are available in zinc plate steel, hot-dipped galvanized and stainless steel.



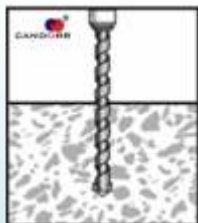
## Ultimate Load

Anchor Size	M8	M10	M12	M16	M20	M24
<b>Tensile (kN)</b>						
C.S.gvz 6.8	15	22	33	47	57	71
S.S.304 A2	17	25	35	50	61	75
S.S.316 A4	17.5	26	37	52	63	78
<b>Shear (kN)</b>						
C.S.gvz 6.8	15.3	26	35	55	63	82
S.S.304 A2	18.2	27.5	38	60	65	85
S.S.316 A4	19.3	28	40	63	70	87

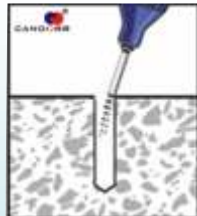
## Recommended Load

Anchor Size	M8	M10	M12	M16	M20	M24
<b>Tensile (kN)</b>						
C.S.gvz 6.8	5	7.3	11	15.6	19	23
S.S.304 A2	5.6	8.3	11.6	16.6	20.3	25
S.S.316 A4	5.8	8.6	12.3	17.3	21	29
<b>Shear (kN)</b>						
C.S.gvz 6.8	5.1	8.6	11.6	18.3	21	27.3
S.S.304 A2	6	9.1	12.6	20	21.6	28.3
S.S.316 A4	6.4	9.3	13.3	21	23.3	29

## Installation Procedure for Candorr Mechanical Anchor Fastener (M.A.F)



(1) Drill a hole into the base material that suits the diameter and embedment depth of the Candorr M.A.F being used.



(2) Blow out dust and loose materials, out of the hole.



(3) Flush the nut on the head of the anchor at zero level. Insert M.A.F & hammer the anchor such that the impact should be on the nut, until it reaches to the bottom.



(4) Using a compatible fixing tool, tighten the nut by applying torque until it reaches the maximum possible strength.

This Products are available in various standard sizes



## CANDORR PIN - TYPE ANCHOR FASTENER

CANDORR PIN TYPE ANCHOR Fastener is fast and easy to use. These are placed into the hole drilled into concrete, once the anchor is placed a 'Pin' or nail is hammered into the anchor expanding the anchor wedging itself into the concrete. These anchor fasteners are very economical through-fixing installation. These are manufactured using high quality steel. These anchors are extensively used in construction, oil, power, chemical, petrochemical and heavy & light industries



This Products are available in various standard sizes

## CANDORR SELF DRILLING SCREW

CANDORR SELF DRILLING SCREW have a hardened drill point that will drill and thread in structural steel and mild steel. These Drill points are designed in a manner much the same as a high speed drill bit. Self-drilling screws are available in a variety of finishes with unique product features to suit a wide range of environmental conditions. Self drilling screws are available in Hex head with EPDM washer. These are used in insulation work, aluminium fabrication, roofing work, furniture work etc.



This Products are available in various standard sizes

## CANDORR NYLON ANCHORING SYSTEM

### CANDORR NYLON ANCHOR FASTENER: FRAME-FIXING ANCHOR

CANDORR NYLON ANCHOR FASTENER is made from virgin nylon to withstand high impact or loads; these are durable and well designed for holding items firmly on the wall. Its great tensile strength makes it unusually resistant to vibration loads. The head of the screw is countersunk head. The pin is made of high strength steel and heavily zinc plated for maximum corrosion resistance & the plug is made of the gray nylon. These are suitable for fixings on concrete, bricks and other high-density material. This anchor is unique design allows the nail to expand the anchor uniformly in the hole. The Nylon fasteners are resistant to chemicals, fungus, moisture and other atmospheric conditions and have excellent electrical and thermal insulating properties.



This Products are available in various standard sizes

# CANDORR CORE CUTTING MACHINE



The diamond core drilling machine have functions as follow:

- ✓ Safety Clutch and Overload Protection.
- ✓ Water proof switch.
- ✓ Soft - starting.
- ✓ Gear speed - regulation.

PARAMETER	CL-205	CL-255
Rated input power w	3900	4250
Max. Drill	mm $\Phi$ 205	$\Phi$ 255
Rated voltage v	110/220-	110/220-
Rated frequency Hz	50-60	50-60
No-load speed rpm	700(0-700)	580(0-580)

## CANDORR CORE BITS

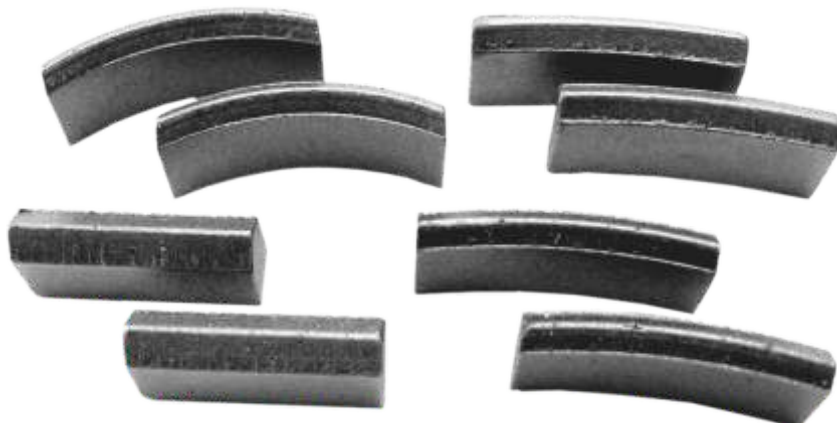
Candorr Core Cutting Machine has a longer functional life and is known for its highly commendable functionality. Excellent speed, smooth and stability during drilling.



This Products are available in various standard sizes

## CANDORR DIAMOND CORE BIT SEGMENTS

CANDORR CORE BIT DIAMOND SEGMENTS are brazed on steel core tubes/ core bits to drill reinforced concrete. They are designed to provide the best life and good cutting speed in heavily reinforced concrete and stone. The pointed top of the segment give the contractor easy cutting & no chipping. Our segments are made of high grade diamond and thus are very sharp & fast.



This Products are available in various standard sizes

## OUR REPUTED CLIENT LIST



Candorr Success Clients include many more., visit [www.candorr.co.in](http://www.candorr.co.in)

### IMPORTANT

The information and data given is based on our own experience, research and testing and is believed to be reliable and accurate. However, as CANDORR products can not know the varied uses to which its products may be applied, or the methods of application used, no warranty as to the fitness or suitability of its products is given or implied. It is the users responsibility to determine suitability of use. For further information please contact our Technical Department.



**Candorr Anchoring Specialities**

**Quality Products. In-time Service.**

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