

# CHEM EP-400

## HIGH STRENGTH EPOXY ADHESIVE

### DESCRIPTION:

CHEM-EP400 is solvent-free, epoxy resin based, two-part high-performance anchoring adhesive.

PRODUCE NAME : Injection Cartridge  
(Pure epoxy resin)  
PRODUCT CODE : Chem EP-400  
PACK SIZE : 400ML  
RATIO : 3:1  
COLOR : PART A-White  
PART B-Black  
MIXED- Gray

### PRODUCT USAGE:

For the fixing of non-expanding anchors in the following:

### STRUCTURAL WORK

- ✓ Rebar / steel reinforcement anchoring in new and refurbishment works.
- ✓ Threaded rods
- ✓ Bolts and special fastening systems

### MECHANICAL AND ELECTRICAL SERVICES

#### INSTALLATION

- ✓ Anchoring of supports for ducting and equipment.

### METAL WORK AND CARPENTRY

- ✓ Fixing of handrails, balustrades and supports
- ✓ Fixing of railings
- ✓ Fixing of window and door frames

#### For fixing of the following substrates:

- ✓ Concrete
- ✓ Hard natural and reconstituted stone
- ✓ Solid rock
- ✓ Hollow and solid masonry
- ✓ Steel
- ✓ Wood

### ADVANTAGES:

- ✓ Non-cracked concrete
- ✓ Can use in damp area
- ✓ High load capacity
- ✓ Non-sag, even overhead
- ✓ Styrene-free
- ✓ Low odor
- ✓ Non contraction after harden
- ✓ High stability
- ✓ No transportation restrictions



### TECHNICAL DATA:

#### DENSITY

- ✓ Part A: 1.70 kg/l ( $\pm 0.5$ kg)
- ✓ Part B: 1.30 kg/l ( $\pm 0.5$ kg)
- ✓ 1.68 kg/l (part A+B mixed) ( $\pm 0.5$ kg)

#### SAG FLOW

Non-sag, even overhead, but need to use wedges to fix rebars before curing. One rebar need two wedges to fix in symmetrical angle.

#### LAYER THICKNESS:

5 mm max.

#### GEL AND LOADING TIMES

Application Temperature (°C)	Gel Time (min.)	Loading Time (hr.)
40	4	3
30	7	5
20	15	7
10	60	12

### APPLICATION CONDITIONS / LIMITATIONS

#### SUBSTRATE & AMBIENT TEMPERATURE

- ✓ +10°C min. / +45°C max.

#### MATERIAL TEMPERATURE

- ✓ Must be at a temperature of between +10°C and +40°C for application.

#### STORAGE CONDITION & SHELF-LIFE:

- ✓ 24 months from date of production if stored properly in original unopened, sealed and undamaged packaging in cool and dry conditions at temperatures between +5°C and +25°C.
- ✓ Protect from direct sunlight.

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### TEST REPORT:

#### PROPERTY APPRAISAL

Test Item	Test Method	Test Result
Tensile Strength (kgf/cm <sup>2</sup> )	ASTM D638-10 (Type 1 Specimen, 5mm/min)	240
Flexural Strength (kgf/cm <sup>2</sup> )	ASTM D790-10 Procedure A	507
Flexural Modulus (kgf/cm <sup>2</sup> )		49232
Compressive Strength (kgf/cm <sup>2</sup> )	ASTM D695-10	1043
Shear Strength (kgf/cm <sup>2</sup> )	Refer to ASTM D1002-10	94.8

#### TEST OF ANCHORS IN CONCRETE

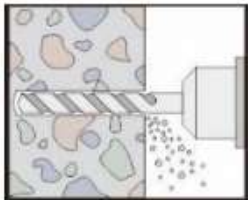
Pressure	Destroy Haul Strength (kgf)	Safety Haul Strength (kgf)	Working Standard (mm)	
Concrete Strength	4000 psi	4000 psi	Hole Diameter	Hole Depth
Steel Strip No.	#3 (Φ10)	3600	13	90
	#4 (Φ13)	5760	16	115
	#5 (Φ16)	15080	20	125
	#6 (Φ19)	22920	25	160
	#8 (Φ25)	29586	32	215
	#10 (Φ32)	34431	40	300

#### APPLICATION INSTRUCTIONS:

- ✓ MIXING: Part A : Part B = 3 : 1 by volume
- ✓ MAXIMUM EMBEDMENT DETH: 800MM

#### APPLICATION METHOD:

##### STEP1. BORE HOLE DRILLING



##### STEP2. BORE HOLE CLEANING



##### STEP3. BORE HOLE FILLING



##### STEP4. REBAR / ANCHOR INSERTING

