

PRODUCT DESCRIPTION

IEA™ is a two-component industrial-grade adhesive formulated for anchoring dowels and bolts into solid concrete, rock and brick wall etc. Having features of high strength, aging resistance, anti-acid and alkali and excellent fatigue resistance, IEA™ is ideal for applications in need of a cost effective, high performance, and chemical resistant fixing.

PRODUCT FEATURES

- Industrial-grade anchoring adhesive
- Wide adhesive range, such as concrete, metal, stone and other building material
- High acid and alkali resistance
- High performance product with no expansion or contraction after curing
- Environment friendly

PRODUCT USES

IEA™ adhesive anchor is specifically formulated to hold rods, reinforcing rebar, and dowels firmly in place in many base materials.

TECHNICAL DATA

Chemical Base	Epoxy Resin
Color	Gray
Mixing Ratio	2:1 (by volume)
Volume solid	100%
Density	1.4 gr / cm ³
Compressive Strength (after 7days)	>9 0 MPa
Bond Strength (after 7days)	16 MPa
Substrate temperature	5°C – 40°C
Ambient temperature	5°C – 40°C

HOW TO USE

Drilling and Cleaning

- Using a rotary hammer drill and a bit which is the appropriate size for the anchor diameter to be installed, drill the hole to the specified embedment depth.
- Once the hole is drilled it must be cleaned. All dirt, oil, debris, wax, grease or dust must be removed. This can be done by using a two-step method of blowing out the hole followed by the use of a wire brush to ensure the hole is cleared of all debris.

MIXING

- These products consist of two parts (resin / hardener). Mix thoroughly by weight or volume in the proportions specified on the product label until uniform in color and consistency.
- Mix no more material than can be applied within the work time period. Available work time, temperature and complexity of the application will determine how much material should be mixed at one time.

INSTALLATION

- Once the hole has been properly prepared, insert the epoxy into the proper dispensing tool.



Injection Epoxy Adhesive - IEA™

- Begin filling the hole from the bottom with the epoxy until it is about 2/3 of the way full. Begin to slowly insert your threaded rod or rebar into the hole, making sure to turn it to embed it into the epoxy.
- Allow the adhesive anchor to cure to the specified full curing time prior to applying any load.
- Clean up any extra epoxy that may have come out of the hole and the process is complete.

LIMITATIONS

- Design calculations must be achieved by a professional company.
- Concrete deterioration and steel corrosion must be resolved prior to application
- Only apply this product when the ambient temperature is within the temperature range of the approved epoxy adhesive. Minimum application temperature is 5°C

CURE SCHEDULE

Base Material Temperature (°C)	Working Time	Initial Cure Time	Full Cure Time
5	8 hr	24 hr	1 week
15	6 hr	20 hr	5 days
25	25 min	12 hr	4 days
35	20 min	8 hr	3 days
45	10 min	6 hr	2 day

STORAGE / SHELF LIFE

- Storage: Store in a cold and dark place, storage temperature: from +5°C up to +35°C.
- Shelf Life: 18 months

HANDLING

Before using this or any AFZIR-LLC product, refer to the Safety Data Sheet (SDS) and label for safe use and handling instructions.

DESIGN INFORMATION

Rebar diameter Φ (mm)	Φ 8	Φ 10	Φ 12	Φ 14	Φ 16	Φ 20	Φ 25	Φ 28	Φ 32
Drill bit diameter (mm)	12	14	18	20	22	26	30	36	40
Hole depth (mm)	85	90	110	130	140	180	220	280	310
Nominal anchorage depth (mm)	80	85	115	125	135	175	210	270	300
Minimum thickness of base material (mm)	110	130	140	180	190	230	270	340	380

CLEANUP

Dispose of material in accordance with local disposal regulations. Uncured material can be removed with approved solvents. Cured materials can only be removed mechanically.

FIRST AID

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water; contact physician immediately. For respiratory problems, remove to fresh air. Wash clothing before reuse.

DISCLAIMER OF LIABILITY

AFZIR, LLC warrants its products to be free from manufacturing defects. Buyer determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to replacement of product. Any claim for breach of this warranty must be brought within six months of the date of purchase.

AFZIR shall not be liable for any consequential or special damages of any kind, resulting from any claim or breach of warranty, breach of contract, negligence or any legal theory.

The Buyer, by accepting the products described herein, agrees to be responsible for thoroughly testing