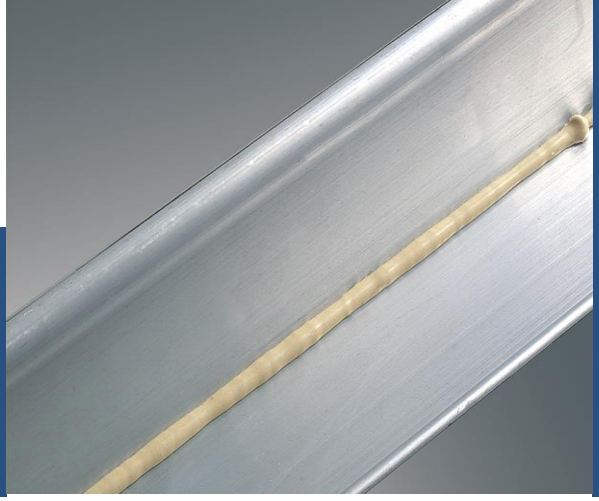
WALL MESH SYSTEM

ES-Adhesive™

Epoxy Structural Adhesive



ES-Adhesive™ is a 2-component, high strength, structural epoxy adhesive used as part of WallMesh system and FRCM system. ES-Adhesive™ offers a wide range of high performance properties like mechanical resistance and strong adhesion. The reaction of epoxy and hardener results an outstanding durable material with excellent rate of bond strength development.

The WallMesh system is the newest type of wall posts, which has replaced conventional wall posts in order to stabilize building walls against earthquakes and wind.

The FRCM system can be used for structural strengthening of concrete, stone, brick and tuff masonry and a general improvement of the structure's strength and ductility.

- Buildings Structures
- Transportation Infrastructure
- Water & Wastewater
- Oil, Gas & Industrial
- Waterfront Structures
- Industrial Facilities

ADVANTAGES

- High strength adhesive.
- Excellent rate of bond strength development.
- Easily mixed and applied by trowel and impregnation roller.
- Good adhesion to concrete, masonry, stonework, steel, cast iron, aluminum, timber
- Thixotropic: Excellent application behavior to vertical and overhead surfaces.
- Fully compatible and developed specifically for the WallMesh and FRCM System

THE WALL MESH SYSTEM IS MADE OF

Fiberglass Mesh

Gypsum / Gypsum Plaster

Epoxy Adhesive

Galvanizes Angle Bar

TYPICAL USES

ES-Adhesive™ epoxy structural adhesive is part of WallMesh system to stabilize building walls against earthquakes and wind. WallMesh system has features that cannot be seen in conventional wall posts. Among these features, we can mention high execution speed, lower price, removal of bed joint reinforcement, removal of vertical and horizontal posts, high flexibility, good adhesion level and high tensile strength. For this reason, the wall mesh system has replaced the steel wall posts.

ES-Adhesive™ epoxy structural adhesive is part of FRCM system. Fiber-reinforced gypsum matrix (FRCM) is a thin structural layer which combines specially designed plaster with carbon or glass fiber mesh reinforcement. It is an economical solution exceptionally suitable for repair and strengthening of concrete, masonry and historical structures.

INSTALLATION PROCEDURE

BUILDING THE WALL

In the first step, it is necessary to build the wall. As it is possible to implement WallMesh system on all walls type, the implementation of Heplex block, brick wall, clay block or even cement block is unimpeded.

PREPARATION OF THE PLASTER

Add the ready mix plaster to the water and mix with a mechanical plaster mixer or low speed electric drill fitted with a suitable paddle for 3-4 minutes, until a uniform, lump-free consistency is achieved. Consult the plaster's technical datasheet for the recommended amount of added water.

APPLICATION OF THE FIRST LAYER OF PLASTER

Apply the first layer of prepared plaster in a single or two layers on the wall to achieve the desired thickness.

FIBERGLASS MESH INSTALLATION

After applying the first layer of plaster and while it is still wet, place AR-GMesh™ fiberglass mesh over the wall surface and press it down lightly with a flat trowel so that it adheres perfectly to the plaster.

APPLICATION OF THE SECOND LAYER OF PLASTER

After placing AR-GMesh™ fiberglass mesh on the wall surface, apply the second layer of prepared plaster in a single or two layers on the wall to achieve the desired thickness.

PREPARATION OF THE PLASTER

ES-Adhesive™ epoxy structural adhesive is supplied in two different containers. Before pouring the contents of component B into contents of component A, each part should be stirred separately to avoid deposit in container. Then part A and B should be mixed together depending on the required quantity. Process of mixing should take 3-5 minutes with a low speed mixer.

ANGLE BAR INSTALLATION

After applying the second layer of plaster, install angle bar on the AR-GMesh™ fiberglass mesh by the use of ES-Adhesive™ epoxy structural adhesive.

TECHNICAL CHARACTERISTICS

PLASTER PROPERTIES	ES-Adhesive™
Chemical Base	Epoxy resin
Mixing Ratio	100:50 Part A: 100 Part B: 50
Pot Life	90 Minutes at 21° C
Density at 21° C	Component A = 1.30kg/L Component B = 1.20kg/L Mixed product =1.26kg/L
Tensile Strength	<25 MPa
Tensile Modulus	<2.1 GPa
Compressive Strength	<30 MPa
Compressive Modulus	<2.1 GPa
Shelf Life	18 month

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