

FM-290 SPECIFICATIONS

BASE SHEET ATTACHMENT TO LIGHTWEIGHT INSULATING CONCRETE

DESCRIPTION

Two legged fastener for attachment of base sheet to lightweight insulating concrete roofdecks. Designed specifically for applications that require maximum withdrawal resistance.

COMPOSITION

Fastener: Precision formed from polymer coated steel to prevent corrosion. 2.4" x 1.3" rectangular rib reinforced head. Two rectangular dual gripping legs, 1.7" long.

Disk: Precision formed from coated steel to prevent corrosion. Rib reinforced cap, 3.6" x 2.5".

TECHNICAL DATA

Approvals: FM-290 fasteners maintain Factory Mutual, Underwriters Lab Approvals and Miami-Dade County Approvals.

Fastening Pattern: Consult Factory Mutual, Underwriters Lab, or Miami-Dade requirements for recommended pattern in normal, exposed, and hurricane areas.

Field Testing: On-site withdrawal testing should always be performed to evaluate the ability of the roofing substrate to satisfactorily accept and retain fasteners. Such testing may alter fastener selection and modify applicable fastening patterns.

INSTALLATION

Equipment: Always use the ES Magnetic Driver to assure proper fastener installation.

Method: Drive FM-290 as an ordinary nail. DO NOT TOE. Seat disk flush with roofing surface (see installation).

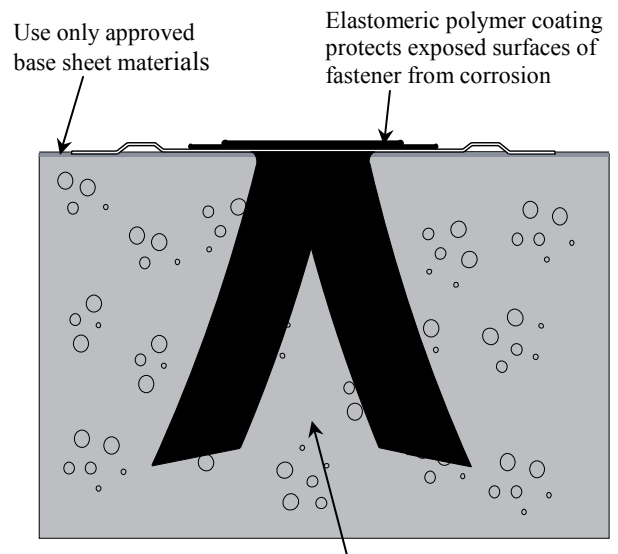
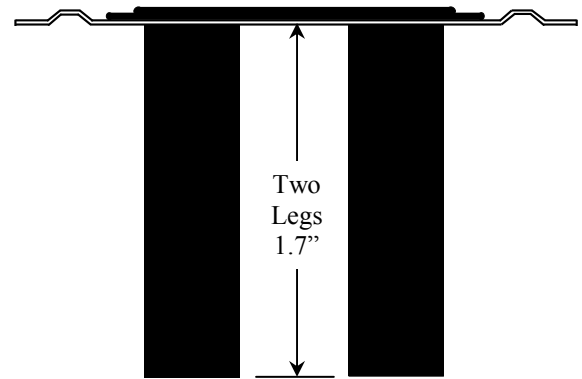
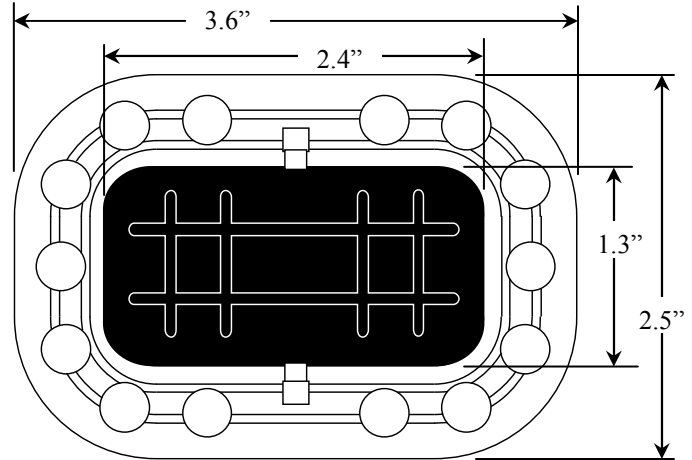
Operation: As FM-290 is driven, dual legs diverge and cut plugs of deck material that wedge and anchor the FM-290 in its own hole. No pre-drilling is required.

Availability: FM-290 is a patented product manufactured only by ES Products, Inc. distributed by leading roofing material and equipment wholesalers throughout the United States.

Packaging: 500 FM-290 fasteners per carton. Gross weight: 35lbs. Shrink wrapped and palletized.

PROUDLY MADE IN THE U.S.A.

Warranty: ES Products, LLC warrants its products for one year from date of sale against defective workmanship and material, and its liability therefore shall be limited to replacing defective products reported defective during the warranty period. ES Products is not responsible for any failure attributable to improper use or installation in any manner inconsistent with manufacturer's specifications. THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, ALL OF WHICH ARE EXPRESSLY DISCLAIMED INCLUDING ANY WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR PARTICULAR USE. This warranty provides specific legal rights and remedies that may vary from state to state.



Fastener anchors itself in its own hole by cutting an inverted wedge of concrete. No pre-drilling required.



ESPRODUCTS

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USING THE FM-290

Fastener density and spacing vary depending on applicable uplift requirements. Local codes, governing approval bodies, membrane manufacturers, and individual roofdeck manufacturers all may have specific requirements that need to be addressed prior to beginning any roofing project. The following illustrates a typical Factory Mutual Approved fastening pattern widely accepted for use by membrane and roofdeck manufacturers.

FASTENING GUIDE CLASS I-90 WINDSTORM CLASSIFICATION

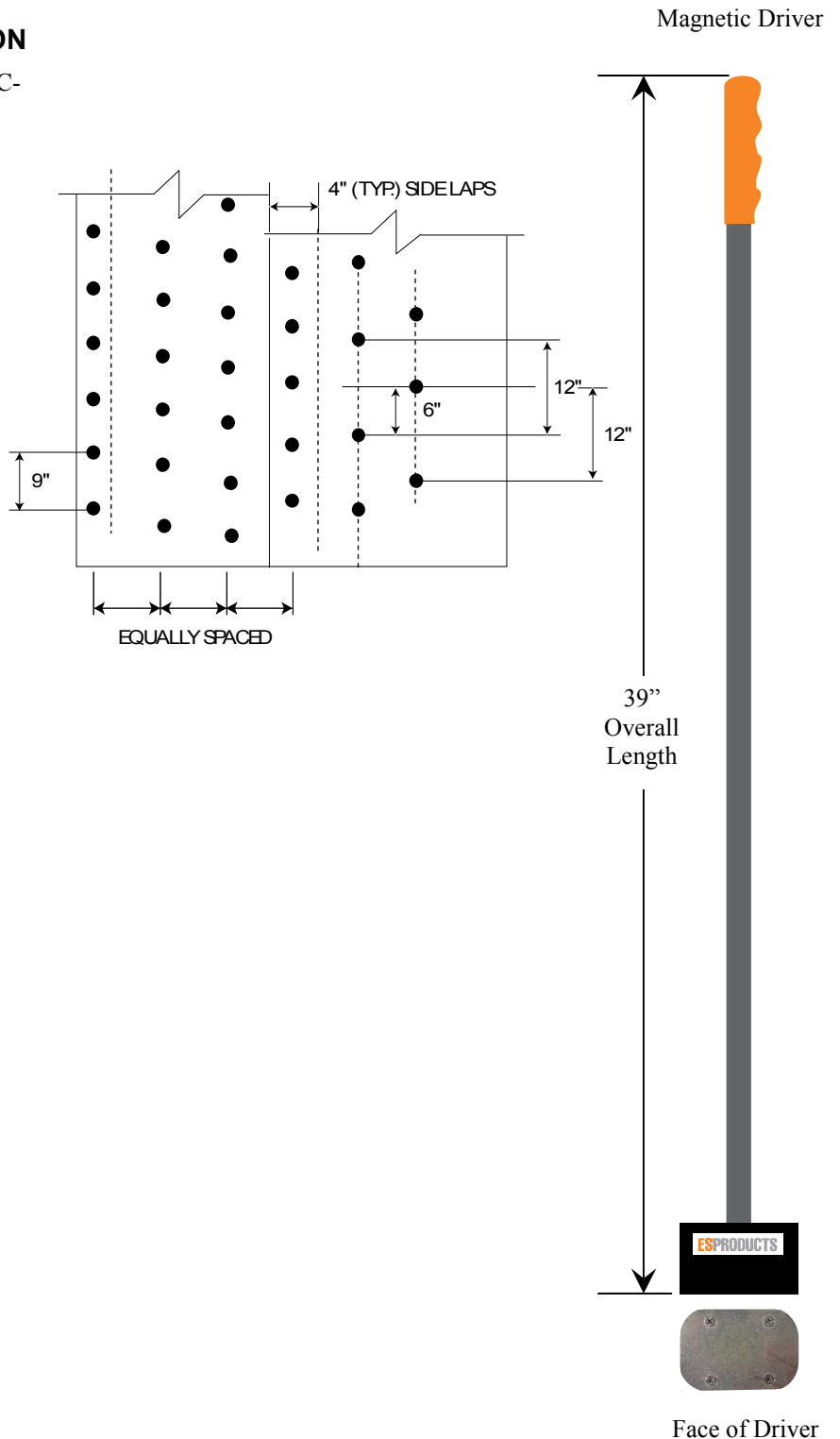
An FMRC-approved base sheet is secured to an FMRC-approved lightweight insulation concrete roofdeck as outlined in the current edition of the FMRC Approval Guide and/or RoofNav.

The base sheet is secured in the field of the roof with FM-290 fasteners installed 9" on center in the side laps and 12" on center in two staggered rows between the side laps.

When fastening meter-wide material with this pattern, expect to use approximately 113 fasteners per square (100 ft²).

IMPORTANT:

Prior to roofing, on-site withdrawal testing should always be performed to evaluate the ability of the roofing substrate to satisfactorily accept and retain fasteners. Such testing may alter fastening selection and modify applicable fastening patterns.



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