

SELECTION & SPECIFICATION DATA

Type	High temperature carbon-filled furan brick mortar
Description	Furalac FN Mortar is a 2-component carbon-filled mortar used to bond and bed acid brick in high temperature chemical environments.
Uses	<p>Bond and bed chemical resistant masonry including acid brick, carbon brick and tile in:</p> <ul style="list-style-type: none"> • Wet gas/hot gas interfaces • Quench tanks • Wet gas scrubbers • Humidifying towers • Reaction tanks <p>Furalac FN Mortar may be used in lieu of silicate mortars where they fail to withstand scrubber solution degradation at hot gas inlets.</p>
Features	<ul style="list-style-type: none"> • Continuous temperature resistance to 420°F (215°C), intermittent to 480°F (250°C) • Broad resistance to acids, alkalis and solvents • Resistant to strong sodium hydroxide • Resistant to hydrofluoric acid • Electrically conductive • Easy workability, non-slumping consistency • Rapid strength gain
Limitations	Not for use beyond its chemical resistance or thermal capabilities. Consult ErgonArmor with specific questions.

INSTALLATION GUIDANCE

Reference Specifications	CES-358 ErgonArmor Specification for Brick Mortar Mixing
Installation Conditions	Furalac FN Mortar is formulated for ideal handling at 70°F (21°C). For temperatures between 35°F (2°C) and 50°F (10°C), add F/P Mortar Accelerator to speed cure.
Ratio	<p>1 part resin: 1.8 parts powder by weight</p> <p>Powder loading may be adjusted slightly to suit individual bricklayer handling preferences.</p> <p>To speed cure in cool temperatures, add 1 part F/P Accelerator: 20-25 parts resin (4-5% by weight).</p>
Mixing	<p>Pour resin into clean, dry mixing vessel. Slowly add powder to resin at specified ratio and mix until powder is thoroughly wetted.</p> <p>To speed cure at cool temperatures, add accelerator to mixed mortar at specified ratio. Never add accelerator directly to resin as it may produce a violent reaction.</p>
Work Life	<p>75 - 85 minutes at 50°F (10°C) 25 - 40 minutes at 70°F (21°C) 10 - 20 minutes at 90°F (32°C)</p> <p>Above results are without F/P Mortar Accelerator. Consult ErgonArmor for information on the effect of accelerator on set time.</p> <p>Work life is shorter at higher temperatures. A larger volume of mixed material will have a shorter work life than a smaller volume.</p>
Cleanup	MEK

CURE TIME

Temperature	Initial Set	Full Cure
70°F (21°C)	1.5 - 2 hours	72 hours

SAFETY

Safety	Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and safety data sheets before using.
Ventilation	Provide thorough air circulation during and after application until the material has cured when used in enclosed areas.

PACKAGING, ESTIMATING & HANDLING

Product	Code	Packaging
Furalac FN Resin	19572	49 lb (22.3 kg) pail
Furalac FN Resin	19571	525 lb (239 kg) drum
Furalac FN Powder	19561	44 lb (20 kg) bag
F/P Mortar Accelerator	22179	45 lb (20.4 kg) pail

A 1.43 cubic foot (137 lb or 62 kg) unit consists of 1 x 49 lb (22.3 kg) pail of resin and 2 x 44 lb (20 kg) bags of powder.

A 45 lb (20.4 kg) pail of accelerator is sufficient for 20-25 pails of resin.

Theoretical Coverage Consumption will vary based on brick size and joint width. Consult estimating guide CES-145.

Storage & Shelf Life Maintain products in original packaging and sealed until ready for use. Estimated shelf life is 2 years when stored in a dry area at 70°F (21°C). Actual shelf life may vary with storage conditions.

If there is any question with respect to the quality of the components, check reactivity prior to use. For assistance consult with ErgonArmor.

TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Color	Black
Density, ASTM C138	96 lb/ft ³ (1,538 kg/m ³)
Compressive strength, ASTM C579	>8,000 psi (55 MPa)
Tensile strength, ASTM C190	>1,000 psi (6.9 MPa)
Flexural strength, ASTM C580	>2,600 psi (17.9 MPa)
Absorption, ASTM C413	0.6%
Bond strength to brick, pull blocks	>400 psi (2.8 MPa)
Maximum service temperature	420°F (215°C) continuous 480°F (250°C) intermittent

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