

## SELECTION & SPECIFICATION DATA

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

## INSTALLATION GUIDANCE

|                                 |  |  |
|---------------------------------|--|--|
| <b>Reference Specifications</b> | CES-358  | ErgonArmor Specification for Brick Mortar Mixing |
| <b>Installation Conditions</b>  | 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.  |  |
| <b>Ratio</b>                    | <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>  |  |
| <b>Mixing</b>                   | <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>   |  |
| <b>Work Life</b>                | <p>75 - 85 minutes at 50°F (10°C)<br/> 25 - 40 minutes at 70°F (21°C)<br/> 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> |  |
| <b>Cleanup</b>                  | MEK  |  |

## CURE TIME

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

## SAFETY

|                    |  |
|--------------------|--|
| <b>Safety</b>      | 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. |
| <b>Ventilation</b> | 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       | 19570 | 500 lb (227 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 approximately 1 year. 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 <sup>3</sup> (1,538 kg/m <sup>3</sup> )       |
| 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<br>480°F (250°C) intermittent |

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