2. Manufacturer
Parex USA, Inc.
4125 E. La Palma Ave, Suite 250
Anaheim, CA 92807
866-516-0061
www.merkrete.com

3. Product Description
BASIC USE: Merkrete 856 XLF is a unique polymer modified portland cement setting mortar for installing extra large porcelain, ceramic, ultra-thin, and stone floor tile. 856 XLF with its exceptional fluid properties is the ideal adhesive for installing standard to ultra-thin, extra large tile and stone over a variety of substrates including tile over tile applications.

Uses: 856 XLF easily provides maximum coverage of ultra-thin, extra large ceramic tile and stone on interior and exterior floor applications. It is recommended for absorptive, semi vitreous, vitreous tile and impervious ceramic tile such as porcelain tile and natural stone over properly prepared masonry, concrete, cement backer board, membranes and existing ceramic tile. 856 XLF is suitable for interior and exterior installations for both residential and commercial construction. It is recommended for use in the thin set installation method for vitreous tiles like porcelain over non-absorptive subfloors, and membranes.

Advantages
• Freeze thaw stable
• Exceptional fluid properties for maximum coverage
• Interior and exterior
• Bonds to most surfaces
• Superior adhesion for extra large floor tile
• Exceeds ANSI A118.4 for latex portland cement mortar

Suitable Substrates
• Brick masonry
• Concrete
• Cutback adhesive
• Exterior grade plywood
• Merkrete membranes
• Post tension
• Existing tile
• Vinyl composition flooring

1 Consult cement backer board manufacturer for installation recommendations and to verify acceptability for exterior use
2 Remove as much Cutback adhesive as possible, apply 626 Primer. If a Waterproof/Crack Isolation is needed use Merkrete’s membranes
3 Interior use only

4. Technical Data
Applicable Standards: Merkrete 856 XLF meets or exceeds industry requirements ANSI A118.4 for latex portland cement mortar and ANSI A118.11 for EPG latex portland cement mortar. Follow ANSI A108.5 for installation.
### Properties:

<table>
<thead>
<tr>
<th>ANSI 118.4</th>
<th>ANSI Requirements</th>
<th>856 XLF Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glazed Wall Tile, 48 hour shear</td>
<td>&gt; 100 psi</td>
<td>&gt; 260 psi</td>
</tr>
<tr>
<td>Impervious Mosaic, 28 day shear</td>
<td>&gt; 200 psi</td>
<td>&gt; 480 psi</td>
</tr>
<tr>
<td>LEED v3 NC VOC</td>
<td>EQ Credit 4.1</td>
<td>856 XLF Results</td>
</tr>
<tr>
<td>VOC</td>
<td>&lt; 65 g/l</td>
<td>0 g/l</td>
</tr>
</tbody>
</table>

### Packaging:
50 lb. bag (22.7 kg.) 48 bags per pallet | Color: White and Gray

### Shelf Life:
One year from manufacturing in sealed original container, when properly stored at room temperature, off the ground in a controlled, dry, heated area.

### 5. Installation

#### Surface Preparation:
All surfaces must be between 40°F (4º C) to 95°F (35º C) and structurally sound (deflection not to exceed 1/360 of the span). Dry clean and free from oil, grease, wax, paint, old adhesives, sealers and curing compounds. Any contaminants which inhibit proper bond must be removed. Substrate preparation should be completed following ANSI A108 AN-2 “General Requirements for Sub-surfaces.” All substrates should be plumb and true, surface deviation should not exceed 1/4” in 10’. Patching, leveling or areas requiring a mortar bed should be prepared using Merkrete’s Underlayments. Movement (expansion) joints should be provided to comply with TCA method EJ 171.

#### Substrates

**Plywood Substrates:** Maximum joist spacing should be 16” on center. Plywood should be exterior glue only. Maintain a gap of 3/16” between plywood underlayment sheets edges and all that abut walls, columns, posts and adjacent sheets. All plywood installations should be interior areas only and protected from exposure to moisture.

**Cement Substrates:** All concrete substrates should be cured a minimum of 28 days. Smooth steel troweled floors should be roughed up using mechanical chipping, scraping or shot blasting. Dampen porous or dry concrete previous to installation of tile. Do not leave puddles or standing water.

**Cement Backer Board:** Follow cement board manufacturer’s instructions

#### Mixing:
In a clean container, add approximately 5.4 quarts (5.1 liters) of clean potable water. Then add the contents of the 50 lb. (22.7 kg) 856 XLF mortar. Mix thoroughly by hand or with a slow speed mixer to a smooth, creamy, trowelable consistency. Allow mortar to slake for approximately 15 minutes, and then remix before using. Remix without adding additional water or powder. Mortar consistency shall be such that when applied with the recommended notched trowel to the substrate, the ridges formed in the mortar do not flow or slump until the tile is put into place. During use, stir mortar mix occasionally. Do not temper with additional water. Do not add latex liquid to 856 XLF.
Application: Apply mortar to the substrate with the flat side of the trowel, with enough pressure to firmly work into the surface. With a notched trowel, immediately follow with a heavier coat of material using the appropriate trowel and enough mortar to provide 100% coverage to the back of the tile. The 856 XLF thin set can be trowled to the substrate holding the notch until the tile is moved perpendicular to the notches, substantially increasing the coverage and contact of the tile. Some extruded or lug back tiles back-buttering of tiles may be required. Do not spread more mortar then can be covered in 20 minutes or before the mortar skins over. It is advised that during the installation, remove a tile to insure the mortar has not skinned over and check the tile and substrate mortar coverage. Comb the mortar using an appropriate notched trowel in one direction. Place tiles in mortar, slide back and forth perpendicular to the ridges to insure proper coverage. Do not adjust tiles set in mortar after 15 minutes.

Limitations: Do not use 856 XLF below 40º F (4º C) or above 95º F (35º C). Use caution; do not allow mortar to freeze for the first 72 hours. Do not soak tiles previous to installation. 856 XLF must not be used to apply over asphalt sheeting, vinyl covered wall board, Masonite®, cement asbestos board, metal, glass, plastic, gypsum mortar beds or other unstable substrates. Improperly cured or wet plywood, particle board or strip wood are not suitable substrates. Installations that will be continually wet like swimming pools, fountains and gang showers, the completed installation should be cured a minimum of 14 days and allowed to dry before exposure to water. For white or light colored marbles use 856 XLF White mortar. Some dimensional stone tile like resin backed, black, green and red marbles may warp when installed with water based setting materials. These water sensitive stone tiles should be installed with Merkrete Pro Epoxy. For use of 856 XLF over additional substrates or situations not mentioned in these instructions, contact Merkrete Technical Services.

Cleaning: Water is all that is needed to remove any uncured mortar from tiles, tools and equipment.

Coverage:

<table>
<thead>
<tr>
<th>RECOMMENDED NOTCH SIZE</th>
<th>1/4&quot; x 1/4&quot;</th>
<th>1/4&quot; x 3/8&quot;</th>
<th>1/2&quot; x 1/2&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramics</td>
<td>6 mm x 6 mm</td>
<td>6 mm x 10 mm</td>
<td>12 mm x 12 mm</td>
</tr>
<tr>
<td>Quarry Tile, Rough Stone</td>
<td>65 – 75 Ft²</td>
<td>55 – 65 Ft²</td>
<td>35 – 45 Ft²</td>
</tr>
<tr>
<td>Large Tile, Marble, Stone</td>
<td>5.0 – 6.9 m²</td>
<td>5.1 – 6.0 m²</td>
<td>3.2 – 4.2 m²</td>
</tr>
</tbody>
</table>

* Coverage depends on trowel notch size, substrate and job conditions

6. Availability
Merkrete 856 XLF is available at leading tile houses and construction distributors. Contact Merkrete or visit our web site for the name of the nearest dealer at www.merkrete.com.

7. Warranty
5 year, 10 year and Limited Lifetime warranties are available. Contact Merkrete Technical Services or visit our web site for specific warranty information. Merkrete warrants that this product meets applicable ANSI standards in force at the time of manufacture.
8. Maintenance
None required, but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

9. Technical Services
Merkrete Systems maintains technical field representatives available throughout the country. Call Technical Services at 800-226-2424 for the nearest representative.

10. Filing Systems
Merkrete architectural product information available either in catalog form, or electronically on our website at www.merkrete.com.

www.merkrete.com

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