1. Product Name
QUIKRETE® One Coat Fiberglass Reinforced Stucco (FRS) Sanded #1200 and Concentrated #1216

2. Manufacturer
The QUIKRETE Companies
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3. Product Description
BASIC USE
QUIKRETE® One Coat Fiberglass Reinforced Stucco is an alternative exterior wallcovering to those specified in Chapter 25 of both the 1997 Uniform Building Code™ (UBC), the 2000 International Building Code® (IBC) and Section R703 of the 2000 International Residential Code™ (IRC). The system is a proprietary cementitious mix for use as an exterior coating reinforced with wire fabric or metal lath. It is applied to substrates of expanded polystyrene (EPS) insulation board, fiberboard, plywood, oriented strand board (OSB) or gypsum sheathing on exterior walls of wood or steel stud construction.

COMPOSITION & MATERIALS
The product is available in 2 forms designated as QUIKRETE One Coat FRS Sanded #1200 and QUIKRETE One Coat FRS Concentrated #1216. QUIKRETE One Coat FRS Sanded is a factory prepared mixture of Type I or Type II Portland cement complying with ASTM C150, hydrated lime complying with ASTM C207, alkali-resistant (AR) glass fibers, proprietary chemical additives and sand. The AR fibers are zirconia based and provide QUIKRETE One Coat FRS with its strength and crack resistance by acting as reinforcing elements. QUIKRETE One Coat FRS Concentrated is the same as QUIKRETE One Coat FRS Sanded, except the concentrated mix lacks sand.

4. Technical Data
APPLICABLE STANDARDS
ASTM International
• ASTM C150 Standard Specification for Portland Cement
• ASTM C207 Standard Specification for Hydrated Lime for Masonry Purposes
• ASTM C834 Standard Specification for Latex Sealants

PHYSICAL/ChemICAL PROPERTIES
QUIKRETE One Coat FRS, when tested in accordance with ASTM procedures specified, yields the results indicated in Table 1.

FIRE RATING
For construction of exterior walls with a 1-hour fire resistive wall assembly, follow instructions in ICC ESR-1240. The assemblies include substrates of EPS insulation board, fiberboard, plywood,

TABLE 1  PHYSICAL PROPERTIES OF QUIKRETE® ONE COAT FIBERGLASS REINFORCED STUCCO

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Wind driven rain, average flow, 24 hours</td>
<td>ASTM E514</td>
</tr>
<tr>
<td>Freeze/thaw resistance, ICBO Acceptance</td>
<td>0.002 lb (0.9 g) per hours</td>
</tr>
<tr>
<td>Criteria 9/30/85</td>
<td>No visible cracking, checking or delamination after 10 F/T cycles of 75° to -20°F (24° to -29°C)</td>
</tr>
<tr>
<td>Water vapor permeability, ASTM E514</td>
<td>7.2 perm (415 mg/(Pa x s x m²)) @ 14 days</td>
</tr>
<tr>
<td>Transverse load strength, ASTM E72</td>
<td></td>
</tr>
<tr>
<td>Wood studs, average load to failure</td>
<td>96 psf (469 kg/m²)</td>
</tr>
<tr>
<td>Metal studs, average load to failure</td>
<td>138 psf (674 kg/m²)</td>
</tr>
</tbody>
</table>
OSB or gypsum sheathing on exterior walls of wood or steel stud construction.

5. Installation
Only contractors with experience applying 1-coat systems, or those certified by the manufacturer, should install QUIKRETE One Coat FRS.

PREPARATORY WORK
The application of QUIKRETE One Coat FRS is intended for use as a 1-coat stucco over #20 gauge galvanized welded wire mesh, 1" (25.4 mm) minimum, or code approved expanded galvanized, self-furring metal lath, 2.5 or 3.4 psf (12.2 or 16.6 kg/m²), and 2 layers of Grade D, 30 minute water resistant building paper.

Installation of wire mesh and building paper shall be in accordance with ANSI A422 and ASTM C926, or local governing building codes. Divide the stucco by stucco grounds into areas not to exceed 144 ft² (13.4 m²), or at a height/width ratio of 2.5:1.

ONE-HOUR FIRE RESISTIVE WALL ASSEMBLIES
There are 3 wall configurations approved as one-hour fire resistive wall assemblies. Do not proceed with construction without consulting ICC ESR-1240.

1. The first assembly uses 5/8" (15.9 mm) Type X gypsum wallboard on the interior face and 5/8" (15.9 mm) Type X gypsum wallboard on the exterior face. The framing can be constructed of 2" x 4" wood studs spaced 24" (610 mm) oc maximum or minimum #16 gauge galvanized steel studs spaced 24" (610 mm) oc maximum. A weather resistive barrier, lath and One Coat FRS are then applied to the exterior face.

2. The second assembly uses 5/8" (15.9 mm) Type X gypsum wallboard with Kraft-paper-faced, 3 1/2" (89 mm) thick, R-11 fiberglass batt insulation installed in the cavity of the wall. One layer minimum of 7/16" (11.1 mm) plywood or OSB sheathing shall then be applied to the exterior face. The framing can be constructed of 2" x 4" wood studs spaced 24" (610 mm) oc maximum or minimum #16 gauge galvanized steel studs spaced 24" (610 mm) oc maximum. A weather resistive barrier, lath and One Coat FRS are then applied to the exterior face.

3. The third assembly uses 5/8" (15.9 mm) Type X gypsum wallboard with Kraft-paper-faced, 3 1/2" (89 mm) thick, R-11 fiberglass batt insulation installed in the cavity of the wall. One layer minimum of 7/16" (11.1 mm) plywood or OSB sheathing shall then be applied to the exterior face. Install a weather resistive barrier, then Type I EPS insulation board with a density of 1 pcf (16.02 kg/m³) over the sheathing. The framing can be constructed of 2" x 4" wood studs spaced 16" (406 mm) oc maximum or minimum #16 gauge galvanized steel studs spaced 16" (406 mm) oc maximum. The lath and One Coat FRS are then applied to the exterior face.

ACCESSORIES
- Insulation boards should be fastened to the studs with approved fastening fixtures, as governed by local or national building codes. The maximum spacing of the nails, screws or mechanical fasteners should not exceed 12" (305 mm) unless otherwise controlled by the codes. All fasteners must penetrate studs a minimum of 3/4" (19.1 mm) or as otherwise specified by local building codes.
- A variety of different accessories may be needed to provide completely homogeneous exterior cladding with no possibility of water leakage, either at corners, around openings or at the bottom and top of the cladding system. Consult ICC ESR-1240 for details.
- All trim, screens and corner reinforcement must be galvanized steel or approved plastic.
- Joint sealant - Seal joints with an approved exterior sealant material where foam edges meet metal or plastic trim, such as with weep bases or dip screeds, and where metal trim is applied. Sealant must comply with ASTM C834.

MIXING (SANDED)
Machine mix in a paddle-type mortar mixer. 1. Add approximately 1.75 gal (6.6 l) of clean water into the mixer for each 80 lb (36.3 kg) bag
2. Slowly pour the contents of the bag(s) into the mixer. Mix for 2 - 3 minutes until a firm, workable consistency is achieved. Avoid overmixing, as this may affect the integrity of the AR glass fibers. Consistency will vary, depending on sand loading and moisture content. If more water is needed, add small amounts and continue to mix until desired consistency is achieved
3. Slowly pour the contents of the bag(s) into the mixer. Mix for 2 - 3 minutes until a firm, workable consistency is achieved. Avoid overmixing, as this may affect the integrity of the AR glass fibers. Consistency will vary, depending on sand loading and moisture content. If more water is needed, add small amounts and continue to mix until desired consistency is achieved.
4. Do not exceed a total volume of 7 gal (26.6 l) of water for each 90 lb (40.6 kg) bag
5. Prepare only enough mix as can be applied in 1 hour

APPLICATION
1. QUIKRETE One Coat FRS may be trowel or spray applied. The proper selection of spray equipment is important. The use of a peristaltic pump. 1 1/2" (38 mm) hose size and 0.5" (13 mm) minimum unobstructed aspiration nozzle is recommended. An 185 cfm air compressor will provide an adequate air supply. Apply stucco onto the mesh working from bottom to top to achieve a minimum thickness of 3/8" (9.5 mm). Force the stucco through the mesh so that it fills the gap between the mesh and wall completely.
2. Using a darby or straight board, screed the stucco flat.
3. After the stucco has lost its sheen, use a float to smooth the surface.
4. Moist cure for 2 days and then air cure for an additional 5 days before applying QUIKRETE Finish Coat Stucco (#1201) or QUIKRETE Liquid Stucco Finish (#1320) as the color and texture coat.
5. For construction details, consult ICC ESR-1240.

CURING
QUIKRETE One Coat FRS must be water cured with a fine mist once it has achieved final set. Spray the wall periodically for 48 hours. During hot and dry conditions, additional precautions may be necessary, including more frequent spraying or the erection of barriers to deflect sunlight and wind. Do not apply when weather is forecast to be above 100 degrees F (38 degrees C) or below 40 degrees F (4 degrees C) within 24 hours without adopting the required hot or cold weather precautions.
QUIKRETE One Coat FRS and QUIKRETE One Coat FRS Concentrated do not require the addition of any other material, such as coloring compounds, calcium chloride, soaps, etc. Such additions will void any warranty and result in a violation of code conditions.
Desired textures can be applied directly to the QUIKRETE One Coat FRS. Textures can also
be obtained through application of QUIKRETE Finish Coat Stucco (#1201) or QUIKRETE Liquid Stucco (#1320). QUIKRETE One Coat FRS and QUIKRETE One Coat FRS Concentrated can be modified with QUIKRETE Acrylic Fortifier (#8610). Add Acrylic Fortifier at a rate of 1/2 gal (1.9 l) to each 80 lb (36.3 kg) bag of QUIKRETE One Coat FRS or 2 gal (7.6 l) to each 90 lb (40.8 kg) bag of QUIKRETE One Coat FRS Concentrated. The addition of Acrylic Fortifier will provide greater impact resistance, strength and durability. If Acrylic Fortifier is used, use it in all batches to maintain color uniformity.

PRECAUTIONS
In cool weather, use warm water to speed the setting time. Do not apply when temperatures are expected to fall below 40 degrees F (4 degrees C) within 24 hours. Protect site from freezing for 48 hours after application.
During hot weather, work during cool times of the day, and use cold water to slow down the setting time. Keep the wall damp prior to application. Do not apply when temperatures are above 100 degrees F (38 degrees C).

6. Availability
QUIKRETE One Coat FRS, QUIKRETE One Coat FRS Concentrated and QUIKRETE Acrylic Fortifier are available at leading concrete construction supply houses and are also available through distributors. Contact QUIKRETE Construction Products for the name of the nearest dealer.

7. Warranty
The QUIKRETE Companies warrant this product to be of merchantable quality when used or applied in accordance with the instructions herein. The product is not warranted as suitable for any purpose or use other than the general purpose for which it is intended. Liability under this warranty is limited to the replacement of its product (as purchased) found to be defective, or at the shipping companies’ option, to refund the purchase price. In the event of a claim under this warranty, notice must be given to The QUIKRETE Companies in writing. This limited warranty is issued and accepted in lieu of all other express warranties and expressly excludes liability for consequential damages.

8. Maintenance
None required.

9. Technical Services
The QUIKRETE Companies maintain technical field representatives throughout the country. Contact a local distributor for the name and number of the nearest representative or call QUIKRETE Construction Products.

10. Filing Systems
Additional product information is available from the manufacturer.