



ONE COAT FIBERGLASS REINFORCED STUCCO

PRODUCT NO. 1200 (SANDED) AND NO. 1216 (CONCENTRATED)



DIVISION 9

09 24 00 Portland Cement Plastering

PRODUCT DESCRIPTION

QUIKRETE® One Coat Fiberglass Reinforced Stucco is a fiberglass reinforced, portland cement based plaster designed for use in one-coat stucco applications. When applied in accordance with IAPMO ES ER-455, this product provides a one-hour fire rating.

PRODUCT USE

QUIKRETE® One Coat Fiberglass Reinforced Stucco (FRS) is an alternative wall cladding system. The system is a proprietary cementitious mix for use as an exterior coating reinforced with metal or wire fabric lath. It is applied to substrates that are load bearing walls of concrete, masonry, or light-framing covered with gypsum board, fiberboard, wood structural wall sheathing, foam plastic insulations, or similar substrates. QUIKRETE® One Coat FRS may also be used as the scratch and brown coat in conventional two- or three-coat stucco systems per ASTM C926.

QUIKRETE® One Coat FRS has been evaluated by IAPMO as an exterior wall covering in compliance with Chapters 14 and 25 of the IBC and Chapter 7 of the IRC. Material has been evaluated for exterior durability, wind resistance, fire-resistance ratings, and installation on walls required to be of Type I, II, III, IV and V construction. The QUIKRETE® One Coat FRS systems have been evaluated and are compliant with the following codes and regulations:

- 2021, 2018, 2015, 2012, 2009 and 2006 International Building Code (IBC)
- 2021, 2018, 2015, 2012, 2009 and 2006 International Residential Code (IRC)
- 2019 California Building Code (CBC) and 2019 California Residential Code (CRC)
- 2020 Florida Building Code, Building (FBC Building), and 2020 Florida Building Code, Residential (FBC Residential)

QUIKRETE® One Coat FRS Concentrated is similar to the QUIKRETE® One Coat FRS, except the concentrated mix is provided for field addition of sand.

SIZES

QUIKRETE® One Coat FRS

- 80 lb (36.2 kg) bag or additionally as a 3000 lb (1360 kg) bulk bag ("super sack") (No. SR43001)

QUIKRETE® One Coat FRS Concentrated

- 80 lb (36.2 kg) bag that must be field mixed with properly graded plaster sand in accordance with ASTM C144 or ASTM C897. Each 80 lb (36.2 kg) bag should be mixed with approximately 210 lb to 250 lb (95.2 kg to 113.3 kg) of sand.



YIELD / COVERAGE

- QUIKRETE® One Coat FRS will cover the following areas based on the thicknesses below and using an 80 lb (36.2 kg) bag:

3/8 inch (9.5 mm)	20 ft ² to 24 ft ² (1.8 m ² to 2.2 m ²)
1/2 inch (13 mm)	15 ft ² to 18 ft ² (1.4 m ² to 1.7 m ²)
3/4 inch (19 mm)	10 ft ² to 12 ft ² (0.93 m ² to 1.1 m ²)

All coverages are approximate and vary with thickness, waste, etc.

- QUIKRETE® One Coat FRS Concentrated will cover the following areas based on the thicknesses below and using an 80 lb (36.2 kg) bag, blended with 210 lb to 250 lb (95.2 kg to 113.3 kg) of plaster sand:

3/8 inch (9.5 mm)	73 ft ² to 87 ft ² (6.7 m ² to 8.0 m ²)
1/2 inch (13 mm)	54 ft ² to 65 ft ² (5.0 m ² to 6.0 m ²)
3/4 inch (19 mm)	36 ft ² to 44 ft ² (3.3 m ² to 4.0 m ²)

All coverages are approximate and vary with thickness, waste, etc.

TECHNICAL DATA

APPLICABLE STANDARDS

- ASTM C144 Standard Specification for Aggregate for Masonry Mortar
- ASTM C834 Standard Specifications for Latex Sealants
- ASTM C897 Standard Specification for Aggregate for Job-Mixed Portland Cement-Based Plasters
- ASTM C926 Standard Specification for Application of Portland Cement-Based Plaster
- ASTM C1063 Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster
- ASTM E72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
- ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials
- ASTM E514 Standard Test Method for Water Penetration and Leakage Through Masonry
- ACI 524R Guide to Portland Cement-Based Plaster

PHYSICAL/CHEMICAL

QUIKRETE® One Coat FRS, when tested in accordance with the procedures specified, will achieve the typical properties shown in Table 1. For construction of exterior walls with a 1-hour fire resistive wall assembly, follow instructions in IAPMO ES ER-455.

TABLE 1 TYPICAL PHYSICAL PROPERTIES

Wind Driven Rain ASTM E514, Avg Flow for 24 hrs	0.002 lb/hr (0.9 g/hr)
Freeze/Thaw Resistance ICBO Acceptance Criteria 10 cycles of 75 °F to -20 °F (24 °C to -29 °C)	No visible cracking, checking, or delamination
Water Vapor Permeability ASTM E96, at 14 days	7.2 perms
Transverse Load Strength ASTM E72	
Wood Studs, Avg. Load to Failure	96 lb/ft ² (469 kg/m ²)
Metal Studs, Avg. Load to Failure	138 lb/ft ² (674 kg/m ²)

INSTALLATION

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

SURFACE PREPARATION

The application of QUIKRETE® One Coat FRS is intended for use as a one-coat stucco over lath that is corrosion-resistant, furred, or self-furring type. Wire fabric lath shall be a minimum No. 20 gauge [0.035 in (0.89 mm)] 1 inch (25 mm) galvanized steel, woven wire fabric. When used over wood-base sheathing, the water-resistive barrier shall be a minimum of two layers of Grade D Kraft building paper, or one layer of polystyrene (EPS or XPS) foam plastic insulation board described in sections 3.2.1.1 and 3.2.1.2 of the IAPMO ES ER-455 report, applied over one layer of 60-minute Grade D building paper. For one-coat applications, utilize in accordance with IAPMO ES ER-455. Installation of wire mesh or lath and building paper shall be in accordance with ASTM C1063 or local governing building codes. Control joints should be installed to limit sections to no more than 144 ft² (13.3 m²), or at a height/width ratio of 2.5 to 1.

ONE-HOUR FIRE RESISTIVE WALL ASSEMBLIES

There are several configurations approved as 1-hour fire resistive wall assemblies. Do not proceed with construction without consulting IAPMO ES ER-455.

MIXING

QUIKRETE® One Coat FRS is recommended to be machine mixed in a paddle type mortar mixer. Add approximately 5 quarts (4.7 L) of potable water per 80 lb (36.2 kg) bag to the mixer. Slowly pour contents of the bag(s) into the mixing water. Mix for 3 to 5 minutes until a firm, workable consistency is achieved. Avoid over-mixing, as this may affect the integrity of the fibers. If more water is needed to achieve a workable consistency, add small amounts at a time up to an additional 2 quarts (1.9 L). Prepare only enough mix as can be applied in 1 hour.

QUIKRETE® One Coat FRS Concentrated is recommended to be machine mixed in a paddle type mortar mixer. Add approximately 5 gallons (18.9 L) of clean potable water per 80 lb (36.2 kg) bag to the mixer. Add approximately 210 lb to 250 lb (95.2 kg to 113.3 kg) of clean plaster sand for each 80 lb (36.2 kg) of QUIKRETE® One Coat FRS Concentrated. Slowly pour the contents of the bag(s) into the mixer. Mix for a minimum of 5 minutes until a firm, workable consistency is achieved. Avoid over mixing, as this may affect the integrity of the fibers. Consistency will vary, depending on the loading and moisture content of the sand. If more water is needed, add small amounts and continue to mix until desired consistency is achieved. Do not exceed a total volume of 6 gallons (22.7 L) of water for each 80 lb (36.2 kg) bag of QUIKRETE® One Coat FRS Concentrated used.

APPLICATION

QUIKRETE® One Coat FRS may be trowel or spray applied. The proper selection of spray equipment is important. Apply stucco onto the metal or wire fabric lath working from bottom to top to achieve a minimum thickness of 3/8 inch (9.5 mm). Force the stucco through the metal or wire fabric lath so that it fills the gap between the metal or wire fabric lath and wall completely. Using a darby or straight edge, screed the stucco flat. After the stucco has lost its sheen, use a hard rubber or wooden float to promote the densification of the brown coat and to provide a surface receptive for finish coat material. For construction details, consult IAPMO ES ER-455.

CURING

Provide sufficient moisture in the plaster mix or by moist or fog curing to permit continuous hydration of cementitious materials. The most effective procedure for curing and time between coats will depend on climatic and job conditions.

QUIKRETE® One Coat FRS may be water cured with a fine mist per ASTM C926 once it has achieved final set. 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 temperatures are above 100 °F (38 °C) or below 40 °F (4 °C). For temperatures near the limits of that temperature range, or if temperatures are forecast to fall below 40 °F (4 °C) within 24 to 48 hours of application, hot or cold weather precautions, such as those in ACI 524R, ASTM C926, and local building codes must be followed. 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, air entraining admixtures, polymers, etc. Such additions will void any warranty and result in a violation of code conditions.

PRECAUTIONS

- Mix no more than can be used in 1 hour.
- For best results, do not overwork the material. Retempering the material should be kept to a minimum during the first hour after mixing.
- During hot weather, work during cool times of the day, and use cold water to slow down the setting time. Keep cementitious substrates, such as concrete masonry block and concrete, damp prior to application. Additional recommendations can be found in ACI 524R and ASTM C926.
- In cool weather, use warm water to speed the setting time. Protect from rain, snow and freezing for 48 hours after application. Additional recommendations can be found in ACI 524R and ASTM C926.

SAFETY

IMPORTANT: Read Safety Data Sheet carefully before using. **WEAR IMPERVIOUS GLOVES**, such as nitrile, mask, and eye protection.

DANGER: Causes sever skin burns and serious eye damage. Prolonged or repeated inhalation of dust may cause lung damage or cancer.

KEEP OUT OF REACH OF CHILDREN

WARRANTY

NOTICE: Obtain the applicable **LIMITED WARRANTY** at www.quikrete.com/product-warranty or send a written request to The Quikrete Companies, LLC, Five Concourse Parkway, Atlanta, GA 30328, USA. Manufactured by or under the authority of The Quikrete Companies, LLC. © 2022 Quikrete International, Inc.