

1. Manufacturer

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2. Product Description

Shikkui Izumi S is the finest, premium natural lime plaster in wet premix form for decorative sprayable applications. It is composed of hydrated lime, calcium carbonate, seaweed extracts, and mineral fibers. The remarkably fine composition allows for thin applications by airless sprayers. The finest finish among all Shikkui plasters.

3. Features

- Natural mineral material
- Airless sprayer or roller application
- Excellent workability
- Designed for projects that require fast and efficient application on large areas
- Interior and exterior applications
- Versatile as final finish: can be flat, matte, polished, orange peel, with artisan surface effects
- Odor free, zero-VOC, and non-toxic
- Naturally antibacterial, antiviral, and antifungal
- Antistatic and hypoallergenic
- Cradle to Cradle certified (Silver)

4. Packaging and Coverage

Shikkui Izumi S is a lime plaster as wet premix.

Package	Application	Coverage		Dry Time
	Thickness	m²	ft ²	Dry fille
44lb (20kg)	0.6mm	26	280	12 hours

5. Suitable Substrates

See Application Scheme for detailed explanations.

6. Colors

For tinting, use manufacturer's liquid color pigments that are compatible with the product, UV resistant and VOC free.

For exterior applications use Topcoat SA as a waterrepellent and anti-efflorescence protective coating.

7. Mixing Instructions

Izumi S is a plaster in paste form. The containing water amount is sufficient for instant spray applications. After opening a new pale, please use a high-speed mixer or gyroscopic mixer to bring the material to the spray consistency and to mix in the colorants.

8. Application Instructions

See Application Scheme for details on application steps.

General Guidelines:

- 1. <u>Primer</u>. Apply Shikkui Sealer primer onto clean and dry surface to ensure proper water absorption control and stable substrate. Let it dry well.
- <u>Base / skim coat</u>. (If necessary, perform a standard joint treatment using base coat.) Apply a base coat at thin layer, working the material in all directions to achieve a strong bond. Let it dry for 5-15 min, then flatten again. For a flat/smooth finish effect, the base coat's surface should be as flat as possible, level 4 or 5. Let it dry very well. This may take at least 3-6 hours depending upon site temperature and humidity.
- 3. <u>Finish coat Izumi S</u>. Spray-apply the finish in a very thin "scratch coat" without covering completely the substrate. Once the moisture has evaporated from the scratch coat and it lost its shine, apply the second thicker coat well covering the surface area.
- <u>Topcoat</u> (for exterior applications and wet areas). Apply economically Topcoat SA in very thin coat in vertical and horizontal directions, covering all surface area. In 15-30 min apply the 2nd coat, also vertically and horizontally. Remove excessively sprayed Topcoat with a roller.

Recommended spraying equipment:

Izumi S plaster

- Airless sprayers (e.g. Graco Mark V or comparable).
- Spray Pressure: 2000 to 2500 psi
- Spray Tips: .533, .535
- Distance to the wall: 1 m (3.3 ft) or less

Primer, Topcoat SA

Airless sprayers (e.g. Graco Mark V or comparable).

- Spray Pressure: 1700 psi
- Spray Tip: .519

Notes:

(a) The actual application depends on application method, optional aggregates and a desired surface texture/effect. The site temperature and humidity may influence the drying time. Please consult with the manufacturer or distributors about application for your particular project.

(b) Shikkui is a natural material and if left in its natural state, will allow the substrate to breathe. If protection against high humidity is required, it can be mixed with 100% natural soybean oil and/or sprayed with a silicon-based agent after completely dry. See Application Scheme for details.

(c) Most Shikkui plasters are relatively easy to apply, allow fast application, thin application layers and low material consumption. However, the specific techniques and timing are critical, therefore for applicators we highly recommend to attend at least one Shikkui workshop.

(d) Use adequate tools to ensure high performance and workability.

(e) Apply the materials at the temperature range 45 - 95F (5 - 35° C).

9. Test Data

All tests were carried out by accredited testing laboratories in the United States.

9.1 Fire Resistance (ASTM E84)

The test was conducted in accordance with the International fire response standard <u>ASTM E84</u>, *"Surface Burning Characteristics of Building Materials"*, also referred to as Steiner Tunnel Test.

Flame spread index	0
Smoke development index	0
Classification by ASTM E84	Class A

Class A corresponds to Type I in other codes.

9.2 VOC Content (ASTM D3960)

The test was carried out in accordance with <u>ASTM</u> <u>D3960</u>, "Determination of Volatile Organic Compound (VOC) Content of Paints and Related Coatings".

VOC				
Grams/Liter	Pounds/Gallon			
0.7	0.0			

The result implies a Zero-VOC material.

9.3 Shore D Hardness (ASTM D2240)

The hardness was determined in accordance with the procedures outlined in <u>ASTM D2240</u> "*Rubber Property – Durometer Hardness*".

Shore A Durometer	95-97
Shore D Durometer	61-62

9.4 Mold/Fungal Resistance (ASTM D3273/D3274)

Testing conducted in accordance with procedures outlined in <u>ASTM D3273</u> "*Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber*" and <u>ASTM D3274</u> "*Evaluating Degree of Surface Disfigurement of Paint* Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation".

The coated test panels did not exhibit any fungal growth on the face or back of the test panels after 28-days of exposure (**ASTM Rating 10**).

10. Certifications



Shikkui Izumi S is certified with Cradle to Cradle at Silver level by McDonough Braungart Design Chemistry (MBDC). More details on: http://www.mbdc.com

11. Clean Up

Freshly mixed Shikkui Izumi S cleans up with water. If the material hardens, it can only be removed by mechanical abrasion or scraping.

12. Maintenance

The product would require no additional maintenance if installed following proper and accepted procedures.

13. Limited Warranty

Manufacturer expressly warrants that all its products shall be of Manufacturer's standard quality and for a period of (2) two years from the date of the purchase, products will be reasonably free of defects in materials and workmanship according to the technical specifications of this building material as described in the technical data sheets. Manufacturer warrants its products to be fit for the ordinary purpose for which they are intended, provided that the products prior to the installation were stored and handled in the manner recommended bv manufacturer in the original package.

Manufacturer makes no other warranties, express or implied: there are no implied warranties including warranty of merchantability or fitness for a particular purpose.

Due to the variety of uses and applications of manufacturer's products, manufacturer does not make any warranties that can be attributed to external aspects related to improper application and craftsmanship, structural movements and cracking, stability of the substrate, problems caused by water penetrating underneath base coat (either due to structural issues or installation), structural cracking, acts of God and other external factors.

14. Storage

Powder: 2-3 years if stored under dry and cool conditions $(5 - 25^{\circ}C)$ in the original package.

Last modified: 15 Dec 2017