

PRODUCT DESCRIPTION

STARGROUT EG-003 is a three component Epoxy based, high performance, chemical resistant & Stain-free grout for glazed, ceramic tiles, vitrified tiles, mosaics, all type of stones and agglomerates coverings. It is suitable for grouting on interior floor and wall applications up to 2-12mm joint width, where the areas are prone to attack by aggressive substances and chemicals. **STARGROUT EG-003** epoxy system offers aesthetic look with smooth finish available in a wide spectrum of attractive colours.

BENEFITS

- Creamy consistency, easy to use & Water clean-ability
- Joint width 2mm-12 mm
- Provides non sagging joints on walls and floors
- Attains smooth and glossy finish joints
- No Shrinkage, therefore total absence of cracks and fissures
- Superior resistance to household stains and Chemicals
- Excellent Abrasion resistance
- Anti-bacterial, fungal resistance
- High compressive & flexural strength properties
- Available in many uniform colours (high colour stability)

STANDARDS COMPLIANCE

- ISO 13007-3 RG
- EN 13888 RG
- ANSI 118.3:2012

USES

- As it offers anti-bacterial and fungal resistance which makes it well suitable for hospitals, clinics, kitchens, food based industries.
- Anti-stain properties make it suitable for grouting ceramic, vitrified & porcelain tiles, large format tiles/stones, low thickness slabs, natural & artificial stones.
- It is used wherever excellent mechanical properties, high chemical resistance combined with a high standard of finish is required such as in swimming pools, slaughter houses, factories and steam cleaned areas.

STAR SPECIALTIES POLYMERS PVT. LTD.

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TECHNICAL DATA SHEET

Testing Parameters	Typical Results
Physical Appearance	Part A(Resin): White colour liquid Part B (Hardener): Light brown liquid Part-C: Coloured free flowing powder
Mix Ratio:	Resin: Hardener: Colour filler Powder 900 g: 450 g: 3.650 kg
Wet Density	1.75 - 1.85 g/cc
Application Temperature:	From +15°C to +30°C
Joint width	2 to 12 mm
Pot life	60 minutes
Initial Water Cleaning	30-40 minutes
Time to Foot Traffic	24hrs
Time to Heavy Traffic	72hrs
Time to Full-Service Conditions	7 days

Actual field performance will depend on installation methods and site conditions

PERFORMANCE PROPERTIES: EN 13888 (RG) / ISO 13007-3 (Classification: RG)			
TEST PROPERTY	TEST METHOD	SPECIFICATION	TYPICAL RESULTS
Abrasion resistance	EN 12808 - 2	< 250 mm ³	205 mm ³
Flexural strength	EN 12808 - 3	> 30 MPa	33 MPa
Compressive Strength	EN 12808 - 3	> 45 MPa	71 MPa
Shrinkage	EN 12808 - 4	<1.5 mm/ m	0.7-0.85 mm/ m
Water Absorption after 240 Minutes	EN 12808 - 5	< 0.1 g	0.010-0.020 g
Chemical Resistance	EN 12808 - 1	Not applicable	Refer chemical resistance table

PERFORMANCE PROPERTIES: ANSI 118.3 :2012			
TEST PROPERTY	TEST METHOD	SPECIFICATION	TYPICAL RESULTS
Water cleanability	ANSI 118.3 (5.1)	80 minutes	Pass (90 minutes)
Initial Setting Time	ANSI 118.3 (5.2)	> 120 minutes	190 minutes
Shrinkage after 7 days	ANSI 118.3 (5.3)	< 0.25%	< 0.14 %
Sag in Vertical Joints	ANSI 118.3 (5.4)	No Change	No Sag
Compressive Strength after 7 days	ANSI 118.3 (5.6)	> 3500 psi (>24 MPa)	>8100 psi (>56 MPa)
Tensile Strength after 7 days	ANSI 118.3 (5.7)	>1000 psi (7 MPa)	1800-2200 psi (12-15 MPa)

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CHEMICAL RESISTANCE CHART:

Chemical Name	Typical Results @ 25 ^o C		
	Prolonged Contact	Moderate Contact (Max. 24 Hrs)	Splash Contact (< 30 mins)
Acetic Acid (5%)	***	***	***
Acetone	*	*	***
Ethanol	*	**	***
Citric acid (20 %)	***	***	***
Hydrochloric acid (10%)	***	***	***
Hydrochloric acid (25%)	***	***	***
Hydrogen peroxide (4%)	***	***	***
Sulfuric Acid (20%)	**	***	***
Sulfuric Acid (50%)	*	***	***
Lactic Acid (5%)	*	***	***
Methanol	*	*	***
Nitric Acid (25%)	**	**	***
Sodium Hydroxide (50%)	***	***	***
Benzoic Acid (5%)	***	***	***
Hypochlorite solution (4%)	*	*	***
Potassium Permanganate (10%)	*	***	***
Potassium Permanganate (1%)	***	***	***
Phosphoric Acid (10%)	***	***	***
Tartaric Acid (50%)	***	***	***
Methyl ethyl ketone	*	*	***
Chloroform	*	*	**
Methylene Chloride	*	*	*
Toluene	*	*	***
Xylene	*	*	***
Diesel	***	***	***
Petrol	***	***	***
Pine Oil	***	***	***
Butyl acetate	*	**	***
Vegetable Oil	***	***	***
Water	***	***	***
Milk	***	***	***
Wine	***	***	***
Sea Water	***	***	***
Fruit Juice	***	***	***
Coffee	***	***	***

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*	Poor
**	Good
***	Excellent

-Data may vary depending on specific site conditions

METHOD OF APPLICATION

SURFACE PREPARATION

Check the tiles/Stones have been fixed correctly and the adhesive should be firmly set and dry. Remove all the grout spacers which have been placed during adhesive bedding. Ensure the grout joints are clean and free from dust, moisture, adhesive residue and other foreign matters.

MIXING:

Ensure wear required PPE before mixing the components. Pour Hardener & Resin components in to a clean container or vessel & mix thoroughly with a margin trowel or a low speed electric stirrer for 1-2 minutes. Add 80% of Part-C (filler powder) component slowly in to the above liquid mix and continue the mixing until get homogeneous and consistent colour paste. Add remaining Part-C (filler powder) component to it to get desired consistency.

APPLICATION

Spread the entire content of the mixed material on the surface with suitable trowel or float, Fill the grout with grout float into the clean, dry joints. Make sure the joints are completely filled without any voids. Afterwards remove any excess material by skimming it diagonally off the tile surface with the grout float. The grout work must be cleaned and finished while the product is in workable state.

CLEANING & DISPOSAL

Clean the grouted surface with portable water within 20-30 minutes of application by using scrub pad. Frequently change the water while cleaning the joints surface. Dress the joints with sponge or suitable cloth on the surface and finish the joints with gloved finger to get smooth finish. Allow to cure the joints for 24hrs and do the final cleaning with soap or shampoo water before allowing for foot traffic.

LIMITATIONS

- Ensure the components are mixed as per recommended ratio. Do not add or mix with any excess matters (water, sand, solvents if any).
- Improper mix ration may adverse product final performance.
- The product's pot life and hardening time is strongly dependent on the ambient temperature. As the temperature increases the product gets set faster.
- The ideal temperature for application is between +15 and +23°C. In these conditions the product is an easily workable smooth mortar, with a pot life of about 1 hour.
- At lower temperatures such as between +8 and +15°C, the product is very dense and difficult to apply. The hardening time is also lengthened considerably.
- Remove excess product from the tile surface instantly while application because once hardened it will have to be removed mechanically,
- Some kinds of tiles (e.g., polished porcelain tile), rough finish of natural stone, microporous surfaces, making them susceptible to staining and very difficult to clean. Colour patches remain persist on surfaces even after cleaning. In this case preliminary test application should be performed in a small portion of area. Avoid using grouts with contrasting or excessively dark colours.

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- The white coloured product tends to take on an ivory or pale yellow shade over time if the grouted area is exposure to sunlight and aggressive chemicals like strong acids etc. For external usage please contact **SSPL** technical representative for assistance.
- Protect the entire grouted surface area until fully cured (at least for 24 hrs)
- Clean all the application tools before the materials gets set.
- Do not use for applications not stated on this technical sheet.

COVERAGE

The coverage depends on the tile or stone size, joint width and depth.

Formula for the coverage calculation:

$$\frac{(A + B) * C * D * 1.6}{(A * B)} = \text{kg/m}^2$$

Where

A = length of tile (mm)

B = width of tile (mm)

C = thickness of tile (mm)

D = width of joint (mm)

Tile Size (mm)	CONSUMPTION OF GROUT (kg/m ²)					
	Joint Thickness(mm)					
	2	3	4	5	7	10
20x20x3	0.93	1.4	1.86	2.33	3.26	4.65
23x23x8	2.16	3.2	4.3	5.39	7.55	10.78
25x25x10	2.48	3.7	5	6.2	8.68	12.4
50x50x4	0.5	0.7	1	1.24	1.74	2.48
50x50x10	1.24	1.9	2.5	3.1	4.35	6.2
100x100x8	0.5	0.74	0.99	1.24	1.74	2.48
125x240x12	0.45	0.68	0.91	1.13	1.58	2.26
150x150x6	0.24	0.36	0.48	0.61	0.85	1.21
150x150x8	0.33	0.5	0.66	0.83	1.16	1.65
200x200x8	0.25	0.37	0.5	0.62	0.87	1.24
250x330x8	0.17	0.26	0.35	0.44	0.61	0.84
300x300x8	0.17	0.25	0.33	0.41	0.58	0.82
300x600x10	0.16	0.23	0.31	0.39	0.54	0.78
400x400x10	0.16	0.23	0.31	0.39	0.54	0.78
450x450x10	0.14	0.21	0.27	0.34	0.48	0.68
600x600x10	0.1	0.15	0.2	0.26	0.36	0.51

* The coverage mentioned in table is indicative only and can vary as per the tile size, thickness, joint width & consider 10% of wastage during application.

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STAR GROUT

EG-003

Rev. No./SSPL-1222/02

Product Data Sheet



HEALTH & SAFETY

As with all chemicals, caution should always be exercised. Protective clothing such as gloves and goggles should be worn.

INHALATION: Inhalation of vapor or mist should be avoided. If inhaled symptoms include coughing, wheezing, laryngitis, and shortness of breath, headache, nausea, and vomiting. Immediately shift victim to fresh air, and, if needed immediately start artificial respiration. Give oxygen if breathing is labored. Get emergency medical help.

EYE CONTACT: Flush eyes with water for 15 minutes and call for medical help.

INGESTION: causes nausea, vomiting, and loss of consciousness. If accidentally swallowed do not induce vomiting rather call for medical help immediately.

SKIN CONTACT: Flush with water or soap and water till all traces have been removed. Seek medical attention if required.

STORAGE & SHELF LIFE

The pails and drums must be stored in a covered area, away from direct sunlight, UV and other sources of heat. The shelf life of the product is up to 12 months if stored as per recommendations. Excessive exposure to sunlight and UV will result in the deterioration of the quality of the product and reduce its shelf life.

PACKING

STARGROUT EG 003 is available in 1 Kg & 5 Kg packs.

WARRANTY

The information given is based on our knowledge and performance of the material. Every precaution is taken in the manufacture of the product and our responsibility is limited to the quality of supplies with no guarantee of the results in the field, as manufacturer has no control over site conditions or execution of work.

DISCLAIMER

The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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