



SAFFROKOL™



SAFFROFLOW GP-1

Technical Data Sheet



Compressive Strength



Chloride-free



Non-ferrous



Gains strength quickly



Suitable for both indoor and outdoor



Easy to use

SK-DS-05MAY25

PRODUCT DESCRIPTION

High Early Strength, Non-Shrink Cementitious Grout

Saffroflow GP-1 is a specially formulated, cement-based, non-shrink, non-ferrous grout designed for high performance and durability. It comes as a dry powder, ready to use just add water at the site for easy application. With low water demand and good compressive strength, it's an economical and reliable solution for a wide range of grouting needs.

KEY FEATURES

- Non-shrink formula for stable placement
- Can be applied by trowel, pouring, or pumping
- Gains strength quickly
- Medium to high final compressive strength
- Chloride-free
- Non-ferrous—won't cause staining
- Suitable for both indoor and outdoor use

APPLICATION AREA

- Filling tie rod holes
- Closing gaps in reinforced concrete
- Grouting around precast concrete elements
- Under bearing plates
- Anchoring bolts and fixings

TECHNICAL DETAILS

Parameter	Results
Appearance	Non-metallic, Free flowing grey powder
Initial setting time	2-3 hours
Water demand	Flowable: 16 ± 1% Pourable: 18±1%
Fresh wet density	2200 100 Kg/m ³
Pot life	50 ± 10 minutes
Workability	25 ± 5 minutes
Layer thickness	20 - 80mm
Water curing	7 Days
Compressive strength	1 Day: ≥ 12 N/mm ² 7 Day: 35 N/mm ² 28 Day: 50 N/mm ²
Pull out bond strength to steel	≥ 20 N/mm ² @ 28 Days
E-modulus	≥ 20 N/mm ² @ 28 Days

COMPRESSIVE STRENGTH (BS 1881 - PART 116: 1983) N/MM²

Days	Flowable (0.18)	Pourable (0.16)
1	10	12
7	35	40
8	46	50

COMPRESSIVE STRENGTH WITH AGGREGATE (IS:516-1959) AT W/P- (0.18)- N/MM²

Days	50% (Aggregate)	100% (Aggregate)
1	12	16
7	38	44
28	50	52

COMPRESSIVE STRENGTH WITH AGGREGATE (IS:516-1959) AT W/P- (0.18)- N/MM²

Days	Flowable (0.18)
1	2.0
7	5
28	7.5

Tensile Strength (W/P -0.18)	2.5 N/mm ² @ 28 days Days
Pullout bond strength (W/P -0.18)	12 N/mm ² @ 7 days 16 N/mm ² @ 28 days
E-modulus	24 N/mm ²



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Technical Data Sheet



Compressive Strength



Chloride-free



Non-ferrous



Gains strength quickly



Suitable for both indoor and outdoor



Easy to use

PRODUCT DESCRIPTION

High Early Strength, Non-Shrink Cementitious Grout

Saffroflow GP-2 is a specially formulated, cement-based grout designed for high performance in a lot of applications. It is free-flowing, non-shrink, and works well across different consistencies—from flowable to pourable. The grout offers good adhesion to various surfaces and delivers good strength and durability, even with low water usage.

KEY FEATURES

- Non-shrink formulation for stable and reliable placement
- Free-flowing for easy application
- Strong adhesion to a variety of substrates
- Good flexural strength
- Resistance to vibrations
- Suitable for both indoor and outdoor use
- Single-component—just add water for use
- Consistent performance across different consistencies
- Medium early strength with low water demand

APPLICATION AREA

- Grouting under heavy equipment
- Filling gaps in reinforced concrete
- Precast concrete installations
- Bearing plates and steel column bases
- Anchoring bolts and other fixings

TECHNICAL DETAILS

Parameter	Results
Appearance	Non-Metallic, Free Flowing Grey Powder
Initial setting time	2-3 hours
Final Setting Time	5-7 hours
Fresh wet density	2200 ± 100 Kg/m ³
Pullout bond strength to steel	≥ 20 N/mm ² @ 28 Days
Time for Expansion	Start 20 minutes Finish 120 minutes
Expansion under unrestrained conditions	Upto 2%
Modulus Elasticity	≥ 28 N/mm ² (ASTM C 469)
Chloride Ions	≤ 0.05%
Carbonation Resistance	Passed
Water Powder	Flowable: 16 ± 1% Pourable: 18±1%
Flow on Table	300 ± 20 mm @ 18% W/P Ratio
Pot Life	50 ± 10 Minutes
Workability	25 ± 5 Minutes
Layer Thickness (Single Pour)	20-80 mm
Water Curing	7 Days
Compressive Strength (ASTM C 109, IS 4031- part 6) Cured in water tank	1 Day 14 N/mm ² 7 Days: 45 N/mm ² 28 Days 65 N/mm ²

COMPRESSIVE STRENGTH

ASTM C 109, IS 4031 PART 06, BS 1881 - PART 116: 1983

Days	Flowable (0.18)	Pourable (0.16)
1	24 N/mm ²	27 N/mm ²
7	55 N/mm ²	65 N/mm ²
8	65 N/mm ²	75 N/mm ²

COMPRESSIVE STRENGTH WITH AGGREGATE

(IS 4031 PART 06) AT W/P - (0.18)

Days	50% (Aggregate)	100% (Aggregate)
1	28 N/mm ²	31 N/mm ²
7	58 N/mm ²	68 N/mm ²
28	70 N/mm ²	80 N/mm ²

FLEXURAL STRENGTH

(BS 4551-1998)(IS:516-1959)

Days	Flowable (0.18)
1	2.5 N/mm ²
7	7.0 N/mm ²
28	10.0 N/mm ²



APPLICATION METHODS

1. Placing the Grout

Apply the grout promptly after mixing. Make sure it flows into all gaps and stays in full contact with the base plate. For base plate applications, maintain a minimum vertical clearance of 25 mm (1 inch). If the space is too tight, consider using a different type of grout that's better suited for thinner applications.

2. Mixing Instructions

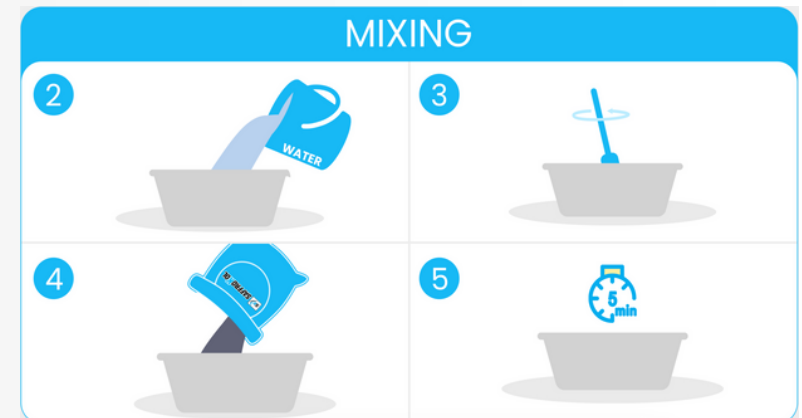
- For small batches, mix the grout by hand in a clean mixing tray until it's smooth and lump-free.
- For larger batches, use a mechanical mixer or a drill with a paddle attachment. Mix for at least 5 minutes.

3. Mixing Steps:

- Add water to the mixer first.
- Slowly add the grout powder while mixing.
- For best results, mix in two stages:
Start with 4.0 liters of water and add the Saffroflow GP-1
After a partial mix, add more water as needed to reach the right consistency.
- Mix thoroughly for another 2–3 minutes.

4. Curing

Check the grout doesn't dry out before it sets. Once it has set, keep it moist and covered for at least 7 days, or use a curing compound to help retain moisture.



5. Cleaning

Clean all tools and equipment immediately after use using warm, soapy water.

SHELF LIFE

Saffroflow GP-1 & Gp-12 has a shelf life of 12 months from the production date if stored in its original sealed packaging, away from moisture, sunlight, and frost.

SAFETY GUIDELINES

Saffroflow GP-1 is non-toxic but has an alkaline nature, so it's important to wear gloves while handling it. If the grout comes into contact with your skin or eyes, rinse it off immediately with clean running water. If any irritation continues, seek medical attention without delay.



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SK-DS-05MAY25

A stylized silhouette of a city skyline with various skyscrapers of different heights and shapes, rendered in a light blue color against the darker blue background of the bottom section of the page.