

High performance epoxy waterproof resin for detailing of waterproofing and ground gas protection systems

Uses

Proofex WG is a free-flow epoxy resin used in conjunction with the Proofex range of membranes for detailing of pile caps, box outs and other similar applications to ensure complete integrity of the waterproofing and ground gas protection system.

When used as part of a ground gas protection solution the system should be designed and constructed in accordance with BS8485:2015 + A1:2019

Advantages

- Non-shrink and hence ensures complete surface contact and bond
- Waterproof and ground gas resistant
- High compressive, tensile and flexural strengths
- Fast, pourable installation with rapid strength gain

Description

Proofex WG is a three-component system consisting of base resin, liquid hardener and specially graded inert fillers. It is suitable for thicknesses from 20-100 mm.

Specification clause

The gas-resistant waterproof resin shall be Proofex WG to achieve continuity of protection at locations where the use of a sheet membrane is not suited. The product shall be mixed and pour applied to a correctly prepared substrate in conjunction with containment formwork in accordance with the manufacturer's written instructions.

Properties

The following results are typical for the hardened grout at 20°C.

Test method for	Typical results
Density:	2025 kg/m ³
Compressive strength (BS 6319, Part 2: 1983) - 6 hours (24°C):	36 N/mm ²
1 day:	89 N/mm ²
3 days:	93 N/mm ²
7 days:	100 N/mm ²
Tensile strength (BS 6319, Part 7: 1985) 7 days:	14 N/mm ²
Flexural strength (BS 6319, Part 3: 1990) 7 days:	32 N/mm
Secant modulus (BS 6319, Part 6: 1984)	13 kN/mm ²



Chemical resistance

Proofex WG is resistant to oil, grease, fats, most chemicals, mild acids and alkalis, fresh and sea water. Consult Fosroc's Customer Service Department when exposure to solvents or concentrated chemicals is anticipated.

Pot life

Ambient temperature affects the time for which bulk material will remain fluid.

Typical values in minutes are:

	10°C	20°C	30°C
Proofex WG:	60	30	15

Application instructions

Preparation

Concrete surfaces

All surfaces must be free from oil, grease, free-standing water or any loosely adherent material. Concrete surfaces should be cut back to a sound base. All dust must be removed and bolt holes or fixing pockets blown clean of any dirt or debris.

Steel surfaces

All steel surfaces should be prepared by suitable mechanical means such that they are free of rust and flaky mill scale. Cleaned surfaces may be protected by the application of Nitoprime 28.

Formwork

If the formwork is to be removed it should be coated with a suitable release agent.

Fosroc® Proofex WG

Mixing

The entire contents of the base and hardener tins must be poured into a container of 25 litres capacity before mixing. Once mixed add filler component and mix with a slow speed drill and Conbextra (MR3) mixing paddle for 2 minutes until a uniform colour and consistency is obtained. In cold temperatures the mixing and application characteristics will be improved by pre-warming all components prior to use

Placing

The mixed material should be poured steadily to eliminate the entrapment of air when pouring into a shutter.

When Proofex WG is applied under base plates (e.g. under steel columns), ensure sufficient material is available to complete the pour before starting. Pour from one side only, ensuring continuous grout flow.

Cleaning

All tools and equipment should be cleaned immediately after use with Fosroc Solvent 102. Spillages should be absorbed with sand or sawdust and disposed in accordance with local regulations.

Limitations

Temperature

During application

The cure rate will be slower near 5°C, and application should not be attempted when the temperature is 5°C and falling. Where application temperature exceeds 20°C, pot life will be reduced significantly. Refer to above table.

In service

The cured grout, which is completely resistant to frost and sub-zero temperatures, is suitable for use up to 45°C.

Exotherm

All epoxy systems will develop a temperature rise on mixing. Its extent will be a function of the volume to surface ratio, the ambient temperature as well as the mass and thermal conductivity of the surrounding materials. Contact Fosroc for specific data on each product.

Estimating

Supply

Proofex WG:	15 litre packs containing liquid, base and hardener
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Storage

Proofex WG has a shelf life of 18 months if kept in dry conditions at 20°C.

Precautions

Health and safety

Fire

Fosroc Solvent 102 is flammable. In the event of fire extinguish with CO₂ or foam.

Flash point

Fosroc Solvent 102:	33°C
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For additional information see relevant Product Safety Data Sheet.

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