

WEBER JB 600/10 NON-SHRINK GROUT C50/60-10



- Easy flowing compound that fills the mould well
- Rapid strength development
- Resistant to salt and freezing
- The product is listed in the portal for building products that can be used in Nordic Swan Ecolabelled buildings.

ABOUT THIS PRODUCT

Salt and frost resistant, class R4 rapidly strengthening compound the volume of which expands slightly prior to setting. Strength class C50/60-10 according to SFS-EN 206. Maximum grain size 10 mm.

AREA OF USE

- Installation, pointing and second stage concrete application of concrete elements
- Difficult second stage and filler concrete applications in small spaces

Exposure classes: XF4, XC4, XS3, XD3, XA1 (XA2).

Product fulfills the requirements of R4-class according to SFS-EN 1504-3, cementitious non-shrink grout to be used in accordance with concrete repair principles 3.2 or 4.4.

SUBSTRATE

The substrate concrete is cleaned carefully of impurities. The best adhesion is achieved on coarse or coarsened concrete. The substrate must be moistened with clean water prior to casting. The moistening must be commenced well in advance so that moisture will no longer be absorbed from the Non-Shrink Grout to the base concrete when casting. Any water that has not been absorbed

PRODUCT SPECIFICATION

Recommended water content	9-10% (9.0-10.0 l/100 kg of dry mix)
Mixed volume	Approx. 440-480 l/1000 kg
Application temperature	The ambient temperature must remain above +5 °C. The optimum temperature of the compound is +10...+20 °C. The cast must not be allowed to freeze during the first 2 days after application.
Adjustable time	Approx. 30 minutes.
Binder	CEM I 52,5 N
Aggregate	Natural sand, grain size 0-10 mm
Additive	Additives that improve workability and weather resistance and increase the volume of fresh concrete
Adhesion strength 28 days	> 2.0 MPa (EN 1542)
Compressive strength class	C50/60-10
Compressive strength 1 day	Approx. 40 MPa (EN 12390-3)
Compressive strength 7 days	Approx. 50 MPa (EN 12390-3)
Compressive strength 28 days	Approx. 60 MPa (EN 12390-3)
Unrestrained shrinkage 28 days	0.7 mm/m (EN 12617-4)
Fire class	A1 (EN 13501-1)
Frost resistance	Yes (Tile test SS-137244 Metod B)
Carbonation resistance	Pass (EN 13295)
Modulus of elasticity	> 20 GPa (EN 13412)
Air content	2-5% (SFS-EN 1015-7)
Chloride content	< 0.05% (SFS-EN 1015-17)
Capillary absorption	≤ 0.5 kg/(m ² ·h ^{0.5}) (SFS-EN 13057)
Expansion (early age)	Approx. +1%
Water cement ratio	0.3 (with maximum water volume)
Volume weight wet	Approx. 2300 kg/m ³
Equipment recommendations	Weber Pump Set with loose- or large sack-silo. Stator Betonstar, steel reinforced hose maximum of 35 m or steel pipe (D=2" with hose and pipe).
Storage conditions	Shelf life is 12 months from date of manufacture (unopened package, dry space)
Package	1000 kg large sack.
GTIN-codes	6415990401845 (1000 kg)
Certifications	CE, FI, Key Flag Symbol

into the substrate must be carefully removed prior to casting using a brush or pressurised air, for example.

The cast must be applied from one side only. The mould of this side must be built higher and wider than the rest

so that the concrete will flow into the mould on its own weight (head box). Since Non-Shrink Grout is very easy flowing, the mould must be tight. When using galvanised steel in grouting or anchorage casting it must be ensured that the surface treatment has become passive. Non-passivated zinc reacts with the fresh concrete compound, resulting in the formation of hydrogen. The layer of hydrogen gas, which is formed around the steel, may cause the adhesion between the steel and the hardened concrete to break. The passivation of galvanised steel takes 2-3 weeks in a temperature of +15...+20 °C and 5-6 weeks in a temperature of 0...+5 °C. In unclear circumstances sufficient passivation must be ensured through preliminary testing. Passivity can also be achieved through chromate treatment.

MIXING

A total of 9.0-10.0 litres of clean potable water is added to 100 kg of Non-Shrink Grout, depending on the flexibility requirement. Mixing should ideally be carried out using a concrete mixer or a slowly rotating drilling machine beater. The minimum amount of water is measured into the mixing vessel and the dry product is added while stirring constantly. After the initial mixing the agility of the compound is inspected and if necessary, the remainder of the water is added. The maximum amount of water must not be exceeded. The temperature of the water should preferably be between +10...+30 °C. The temperature of the water is selected so that the temperature of the ready-to-use compound is +10...+20 °C. The mixing time when using mechanical mixing devices is 3-5 minutes.

WORK INSTRUCTIONS

Once mixed, Non-Shrink Grout remains suitable for casting for about 30 minutes. However, in order to fully benefit from the expansion, which affects the filling capacity of the grout, casting should be carried out as soon as possible after mixing. The casting is performed from one side only. If necessary, the pouring of the grout can be aided by compacting or gentle vibrating. The appli-

cation temperature must remain above +5 °C. Fresh cast must not be allowed to freeze within the first two days after application.

Large casts for machine baseplates are commonly done in one cast layer so that the layer is a minimum of 30 mm and maximum of 200 mm in thickness. However, total material consumption in cast must be less than 200 litres due to heat development caused by cement reactions. Larger casts are divided to several layers. The top layer is cast approximately 24 hours after the bottom layer. In large casts a compound of maximum stiffness must be used in order to avoid the risk of disintegration.

Separate anchoring boltholes for machines and through holes in walls and floors can be done in one cast if material consumption in cast is less than 200 litres.

AFTER-TREATMENT

Aftercare begins as soon as the casting has been completed, by protecting the surface from drying too quickly (moisture and cover). Gentle moistening can usually be commenced as soon as 30 minutes after the casting, once a more compact, soft cover layer has formed on the surface. Moistening ensures the sufficient expansion of the grout and a high level of hydration of the cement. Generous moistening must be continued for at least the duration of the first two days. Aftercare is then continued by spraying water on the surface and covering it, for example, or by using aftercare products for at least 7 days.

DISCLAIMER

As there are different conditions at every opportunity, Weber can not be held responsible for anything other than the information provided under the heading "Product Specification". Examples of information and circumstances, which are outside Saint-Gobain (whether specifically stated or not) include storage, construction, processing, interoperability with other products, workmanship and local conditions.