JOOTEBETOON C55

NON-SHRINK CONCRETE C55

Compressive strength class C45/55 EVS-EN 206-1

A pumping and hand-laying grade, weather resistant and easy flowing fine-grained dry concrete.
FIELD OF APPLICATION
Installation of concrete elements and joining of patching bays.
Anchorage installation and soldering.
Filler concrete applications in narrow spaces.
For indoor and outdoor use.

PROPERTIES

- Minimum compression resistance of hardened non-shrink concrete is 55 **MPa** pursuant to EVS-EN 206-1
- Flow properties of non-shrink concrete is **120 mm** pursuant to EVS-EN 13813 provided 16% water is added to dry mix.
- Rapid strength development and stable volume.

COMPOSITION

- Silica sand, granite sand, cements, binders, plasticisers.

PREPARATIONS

- Clean dust and loose particles from the substrate.
- To achieve better adhesion moisten the substrate with clean water prior to casting.
- When building a mould, it has to be precise and tight to prevent the mix flowing out of the mould.
- When soldering anchors and other steel structures ensure that the steel surface treatment has become passive. Unpassivated zinc reacts with the fresh concrete compound, resulting in the formation of hydrogen, which reduces adhesion between steel and concrete.
- When hand-laying pour the required quantity of the dry mix in the mixing bowl or mixer.
- Add water 14–16% of the mix weight (3,5–4 litres per 25 kg bag).
- Stir until the mixture is completely wet.
- The optimum temperature of the concrete mass is +10 to +20^{0}C. Lower temperatures slower the hardening process of concrete. The cast must not be allowed to freeze during the first 48 hours.
- To achieve the best adhesion and flowing properties casting has to be carried out within 5-10 minutes after adding water. The once mixed grout remains suitable for casting for 1 hour.
- Incision and moving helps to compact the cast.
- It is recommended to protect the casted surfaces against too quick drying. Moisturising helps to ensure uniform hardening of the casted concrete and volume stability.

CONCRETE HARDENING PROGRESS at temperature of +20^0 and added water of 14%.

- Concrete compressive strength after 48 hours approximately ≥35 MPa
- Concrete compressive strength after 7 days approximately ≥45 MPa
- Concrete compressive strength after 14 days approximately ≥50 MPa
- Concrete compressive strength after 28 days approximately ≥55 MPa

TECHNICAL SPECIFICATIONS

Fresh density	2200 kg/m^3
Dry mix density	1.6 kg/dm^3
Average water absorption coefficient	C =0.1 kg/(m^2 ·min$^{0.5}$) EVS-EN 1015-18
Tested durability against freeze-thaw:	56 cycles mass loss 0.35 kg/m^2 EVS 814:2003
Flowing properties mixed with 20% of water	120 mm pursuant to screed material standard EVS-EN 13813:2005
Working temperature	+5 ^{0} C to +30 ^{0} C

STORAGE, WARNINGS

- Store bagged mix powder in dry conditions.
- Storage time of mix powder is 1 year.
- The product contains cement. Contact with water causes alkaline reaction. Can cause skin irritation. Upon contact with eyes rinse immediately with plenty of water.