

# **VALUBETOON M300**

## **NON-SHRINK CONCRETE M300**

Compressive strength class C30/37 EVS-EN 206-1:2007

**A pumping and hand-laying grade, weather resistant fine-grained dry concrete.**

**NB! In winter concrete is produced for use in temperatures of up to -10 °C**

**For high-precision cast concrete works.**

**Suitable for mounting concrete elements of all kinds.**

**For slab installation and recondition of installation defects.**

**For equipment affixing into foundation, for installation of anchors.**

**Suitable for internal and external works.**

### **COMPOSITION**

Quartz sand (max. grain  $\varnothing$  3 mm), Portland cement, aluminate-cement, polymers, plasticizers.

### **PROPERTIES**

Minimum compression resistance of hardened non-shrink concrete is **30 MPa** pursuant to EVS-EN 206-1:2007

Flow properties of non-shrink concrete is **60 mm** pursuant to EVS-EN 13813 provided 18% water is added to dry mix.

Rapid strength development and stable volume.

### **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 16–18% of the mix weight (4–4.5 litres per 25 kg bag).

Stir until the mixture is completely wet.

The optimum temperature of the concrete mass is +10 to +20°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° and added water of 17%.

Concrete compressive strength after 48 hours approximately  $\geq 20$  MPa

Concrete compressive strength after 7 days approximately  $\geq 25$  MPa

Concrete compressive strength after 28 days approximately  $\geq 30$  MPa

### **TECHNICAL SPECIFICATIONS**

Fresh density	2150 kg/m <sup>3</sup>
Dry mix density	1.4 kg/dm <sup>3</sup>
Average water absorption coefficient	C = 0.1 kg/(m <sup>2</sup> · min <sup>0.5</sup> ) EVS-EN 1015-18
Tested durability against freeze-thaw:	56 cycles mass loss 0.97 kg/m <sup>2</sup> EVS 814:2003
Flowing properties mixed with 18% of water	60 mm pursuant to screed material standard EVS-EN 13813:2005
Working temperature	+5 °C to +30 °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.