



# webervetonit REP 36

## Quick Casting Mortar

- Quick-dry for coating
- Easily machined and screed ready for coating
- Pumped, fiber reinforced
- Fulfills both BY45 and InfraRYL 42020.1.6. requirements
- Approved in the bridge repair instructions (SILKO) of the Finnish Road Authority

### About this product

The salt and frost-resistant R4-class fast setting repair mortar for structural repairs outdoors. The product is suitable for demanding repairs of concrete structures, where the concrete strength is approximately 30-50 MPa. Maximum grain size 4 mm.

### Area of use

In accordance with the concrete structures repair and reinforcement methods 3.2 (concrete casting) or 4.4 (adding mortar or concrete). The product meets the requirements of the 1504-3 Class R4 SFS-EN standard. Applications include e.g. bridges, port and parking garage castings, as well as balcony and facade structures.

### Substrate

The substrate and air temperature must be above 5 °C. The optimal temperature for the mix is +10...+20 °C. The cast must not be allowed to freeze during the first three days.

### Mixing

2.8-3.0 litres of clean water are added to a 25 kg sack (approx. 12%) depending on the workability required. Mixing is best done in a concrete mixer or a slowly rotating drilling machine beater for 3-5 minutes. A minimum amount of water is measured to the mixing vessel and the dry matter is added, stirring evenly. After the initial mixing, check that the workability of the mass and add the remaining water if necessary. Do not exceed the maximum amount of water. The water temperature should be preferably in the range of +10...+30 °C. The water temperature is selected so that the final temperature of the mass is in the range of +10...+20 °C.

### Work instructions

Old concrete surfaces are cleaned and, if necessary, roughened. Then the surfaces are pressure washed clean. Before starting work moisten the surface lightly if necessary. The surface must be moist when starting the casting work. Adhesion to the concrete can be ensured by brushing mortar strongly to the substrate and the casting is done immediately onto the fresh adhesive layer. The thickness of one casting layer is approx. 10-100 mm. When doing thicker casting in several layers leave the surface of the under layer rough to create a good grip between layers or use webervetonit SB 45 Repair Concrete C35/45-8. In larger casting, mortar can be pumped into the casting area using pumping equipment.

### Product specification

Recommended water content	2.8-3.0 l/25 kg dry mortar
Mixed volume	approx. 12 l/25 kg (approx. 500 l/1000 kg)
Pot life (Operating time)	approx. 1 h
Binder	CEM II/A-LL 42,5 R, rapid hardening Portland cement
Aggregate	Natural sand 0-4 mm
Additive	Workability, weather resistance and tightness enhancing additives
Adhesion strength 28 days	> 1.5 MPa (EN 1542)
Compressive strength 1 day	approx. 20 MPa (+20 °C, EN 12190)
Compressive strength 7 days	approx. 40 MPa (+20 °C, EN 12190)
Compressive strength 28 days	> 45 MPa (+20 °C, EN 12190)
Restrained shrinkage/expansion	Adhesion strength after test > 1.5 MPa (EN 12617-4)
Fire class	AI (EN 13501-1)
Frost resistance	Salt-frost resistant (EN 13687-1)
Carbonation resistance	Approved (EN 13295)
Air content	6-12%
Chloride content	< 0.05% (SFS-EN 1015-17)
Volume weight wet	approx. 2000 kg/m³
Equipment recommendations	Weber Pump Kit with large sack silos or for small sacks. Stator U356-0.75 or Betonstar, 2" metal reinforced hose with a length of over 40 m, max. 60 m.
Storage conditions	Shelf life is 12 months from date of manufacture (unopened package, dry place)
Package	25 kg sack. 1000 kg large sack.
Certifications	CE

### After-treatment

Casting curing is planned in accordance with the conditions, layer thickness and coating schedule. With regard to balconies curing is carried out by watering or plastic covers if necessary. If you aim for quick drying then using water for curing should be avoided. In this case, a suitable curing method is a curing compound or plastic covers.

### Coating

REP 36 can be coated in about a week after casting, depending on conditions and layer thickness. Bridge projects must be done in compliance with Silko coating guidelines (coating can be done approximately 1-2 weeks after casting). In cold conditions, the drying time will be longer. Surface moisture % should always be checked before starting the coating work.

**Please observe**

In order to minimize the risk of cracking pay particular attention to the characteristics of the surface, pre-treatment and curing when making thin and large-area surface casting. In

large castings (> 10 m<sup>2</sup>) shrinkage reinforcement must be used, and, where appropriate, the area should be divided into smaller units around the expansion joints. Cracking due to shrinkage can occur on the finished surface, but the fibers in the mortar ensure the functionality of the structure in spite of this.