

WEBER RL 45 SPRAYED MORTAR C35/45-4



- Cement based and plastic fibre-reinforced
- Resistant to salt and freezing
- Can be sprayed with very low loss of material
- Approved in the bridge repair instructions (SILKO) of the Finnish Road Authority
- 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 sprayed repair mortar, which is designed for structural repair of concrete by spraying. Strength class C35/45-4 according to SFS-EN 206. Maximum grain size 4 mm. On order also available with sulphate resistant SR-cement (RL 45 SR).

AREA OF USE

Product intended for structural repair of concrete as cementitious mortar for concrete repair according principles 3.3., 4.4 or 7.1. Product fulfills the requirements of R4-class according to SFS-EN 1504-3.

Exposure classes when sprayed: XF4, XF3, XF2, XC4, XS3, XD3, XA1 (100 years designed lifetime), SFS-EN 206.

- Increasing of protective concrete layer in balcony structures and socles
- Increasing of structural strength in bearing structures, such as beams

PRODUCT SPECIFICATION

Material consumption	Approx. 20 kg/m ² /10 mm
Recommended layer thickness	Approx. 10-30 mm (at a time)
Recommended water content	3.25-3.75 l/25 kg
Mixed volume	Approx. 12-13 l/25 kg (Approx. 500 l/1000 kg)
Pot life (Operating time)	Approx. 1 h
Binder	CEM I 52,5 N
Aggregate	Natural sand 0-4 mm
Additive	Additives that improve workability and weather resistance. Plastic fibres.
Adhesion strength 28 days	> 2.0 MPa (EN 1542)
Compressive strength 1 day	Approx. 10 MPa when sprayed (EN 12190)
Compressive strength 7 days	Approx. 40 MPa when sprayed (EN 12190)
Compressive strength 28 days	> 45 MPa when sprayed (EN 12190)
Restrained shrinkage/ expansion	Adhesion strength after test > 2.0 MPa (EN 12617-4)
Fire class	A1 (EN 13501-1)
Frost resistance	Salt-frost resistant (EN 13687-1)
Carbonation resistance	Pass (EN 13295)
Air content	5-10%
Chloride content	< 0.05% (SFS-EN 1015-17)
Capillary absorption	≤ 0.5 kg/(m ² ·h ^{0.5}) (SFS-EN 13057)
Density	Approx. 2000 kg/m ³
Water cement ratio	0.45 (with maximum water volume)
Equipment recommendations	Weber Pump Set for coarse plasters and mortars, max. grain size 8 mm, with large sack silo or to normal sacks. Stator Ü356, steel reinforced hose maximum of 60 m.
Storage conditions	Shelf life is 12 months from the date of manufacture (unopened package, dry space)
Package	25 kg sack. 1000 kg large sack. On order also bulk in a silo to large sites.
GTIN-codes	6415990155953 (25 kg) 6415990155977 (1000 kg) 6415990352185 (Bulk)
Certifications	CE, FI, Key Flag Symbol

- Repair and tightening of old shotcrete surfaces

- Vertical joints of concrete elements
- Jointing of natural stone walls

SUBSTRATE

Damaged concrete should be removed by high pressure water blasting, for example. Surfaces that will be in contact with the mortar must be absorbent and free of dust, cement glue and other impurities that might weaken the adhesion. The substrate is moistened before the work is started. The surface must be damp when spraying is started.

MIXING

The mortar can be mixed with a continuous screw mixer attached to a silo or mortar pump. The mortar can also be mixed with a pan mixer.

WORK INSTRUCTIONS

The temperature of substrate and air must be over +5 °C. Application is done according to normal working methods with wet sprayed mortars (please refer to BY 41: BETONIRAKENTEIDEN KORJAUSOHJEET 2007). The layer thickness on large surfaces is approximately 30 mm

at a time. Individual holes up to 100 mm can be filled with single spraying. If needed, the surface is evened immediately and after drying a little while scratched with a wooden grinder. If spraying is done in more than one layer, lower layer is only evened, not scratched! Next layer can be sprayed normally the next day.

AFTER-TREATMENT

The mortar is wetted and evaporation is prevented, using for example a plastic cover for at least 7 days. The temperature of air must be over +5 °C during the after-treatment period.

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.