



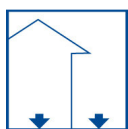
Technical Data Sheet Art. No. 0553

Grout HQ3 Plus

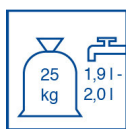
Ultra-high tenacity, shrinkage-free, cement bound, dry mortar for load-bearing building elements

Corresponds to DAfStb Guideline: "Production and Use of Cement Bound Poured Concrete and Poured Mortar"

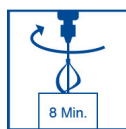
Certified as grout material by DNV-GL



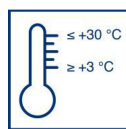
For use indoors and outdoors



Dry mortar / water



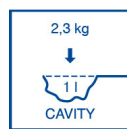
Mixing time



Working temperature



Mortar pump / Casting



Total application rate per volume filled



Shelf-life



Protect from moisture!

Range of use

- For use indoors and outdoors
- Permanent connection of massy construction elements that are exposed too high dynamic loads, on and offshore (e.g.. grout connections on wind power plants)
- ICE railway sleepers
- Surfaces and moulded components that are exposed to high attrition

Property profile

Remmers Grout HQ3 Plus is a cement bound, chloride and shrinkage-free, factory-mixed, dry mortar with high sulphate resistance and low effective alkali content that is ready to use after mixing with water. It can be produced with all conventional positive mixers.

The material achieves very high early and ultimate strength in connection with very good flow and pumping properties. The DNV-GL-certified special mortar adheres well, is water impermeable, vapour diffusion open and resistant to frost and de-icing salt.

Characteristic data of the product

Largest grain:	3 mm
Water requirements:	7,5-8,0 %
Slump	after 8 min.: ≥ 700 mm
	after 60 min.: ≥ 650 mm
	after 120 min.: ≥ 600 mm
	after 180 min.: ≥ 550 mm
	after 240 min.: ≥ 500 mm
Working time at 20 °C:	approx. 240min.
Degree of swelling after 24 h:	+ 0.5 % by volume
Fresh mortar density:	approx. 2.45 kg/dm ³
Compressive strength on prisms	
After 24 h:	≥ 65 N/mm ²
After 7 days:	≥ 120 N/mm ²
After 28 days:	≥ 140 N/mm ²
After 90 days:	> 150 N/mm ²
Exposure class assignment in accordance with EN 206-1/DIN 1045-2:	XC1 – XC4; XD1 – XD3, XO XS1 – XS3; XF1 – XF4* XA1 – XA3; XM1* – XM3
Moisture class assignment:	WO, WF, WA, WS
Fire class (EN 13501):	A1
Classification according to DAfStb Rili - VeBMR:	
Consistency class:	f ₂
Shrinkage class:	SKVM I
Early strength class:	A
Compressive strength class:	C 100/115

*Exposure classes XM1 – XM3 and XF4 are excluded from Rili - VeBMR.

0553 Grout HQ3 Plus_11.16

Substrate

The substrate must be clean, sound and pre-wet to saturation. Remove standing water. Remove loose material and other substances that could interfere with adhesion as well as cement grout by sandblasting, scraping or by similar means. The substrate must also be sufficiently rough. The grains close to the surface must be exposed. The pull-off strength of the substrate must be $> 1.5 \text{ N/mm}^2$ on average.

Directions

Pour **1.9 l of water** into a clean container (mortar tub), then add **25 kg Grout HQ3 PLUS**. Mix thoroughly with a mixer / positive mixer for approx. 8 minutes until a homogeneous, lump-free consistence proper for working has been achieved. If necessary, a small quantity of water up to a max. of 2.0 l in total can be added.

The mortar is normally poured without interruption from just one side or corner; in difficult cases it can also be compacted. The material can be applied in layers from 15 - 300 mm thick.

Notes

Do not use if the temperature of the air, substrate and building material is below $+3 \text{ }^\circ\text{C}$ or above $+30 \text{ }^\circ\text{C}$. The characteristic data given for the product was determined under laboratory conditions in accordance with DAfStb Rili - VeBMR.

Protect the exposed surfaces of the fresh mortar from extreme weather loads (heat, wind, frost) by covering with plastic sheets or Remmers Concrete Skin art. no. 1230 for at least 3 days.

When cement bound building materials come in contact with non-ferrous metals (e.g. aluminium, zinc, copper), they may have a dissolving effect.

Tools, cleaning

High performance positive mixers with sufficient volume and high mixing power.

Hand mixers are suited only for briefly re-mixing the mortar after process determined pauses. Due to the mixing time, a batch mixer should be used when using a mixing pump.

Clean tools with water while the material is still fresh.

Packaging, application rate, shelf-life

Packaging:

25 kg paper bags, big bags and silo provision on request

Application rate-dry mortar:

Approx. 2.1 kg/l void

Shelf-life:

Approx. 9 months stored dry in closed bags

Safety, ecology, disposal

Further information on safety when transporting, storing and handling as well as disposal and ecology is found in the latest Safety Data Sheet.

The statements above are compiled from our field of production and according to the latest technological developments and application techniques.

Since application and working are beyond our control, no liability of the producer can be derived from the contents of this information sheet. Any statements made beyond the contents of this information must be confirmed in writing by the producer.

In all cases, our general conditions of sale are valid. With the publication of this Technical Information Sheet all previous editions are no longer valid.



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