

Expansive grouting mortar/concrete qv 1000-1 / qv 1000-4 / qv 1000-8

Faster-setting expansive grouting mortar/grouting concrete for the highest dynamic and static loading situations. In accordance with the "Merkblatt für Vergussmörtel" (Pamphlet on grouting mortar) issued by the Deutscher Betonverein e. V. (German Concrete Association) and with the DAfStb (German Committee for Reinforced Concrete) guideline entitled "Herstellung und Verwendung von zementgebundenem Vergussbeton und Vergussmörtel" (Manufacture and application of cement-bound grouting concrete and grouting mortar).

Technical information	
Compressive strength:	
After 24 hours:	≥ 25 N/mm ² / 24 h (Class B)
After 28 days:	≥ 60 N/mm ² / 28 d
Strength category:	C 50/60, in acc. with DIN EN 206.
Exposure classes:	XC 4, XF 1, XA 1 in accordance with DIN EN 206
Slump flow class (grain size 0 to 1 mm):	f1
(grain size 0 to 4 mm):	f1
(grain size 0 to 8 mm):	a2
Discharge flow class (grain size 0 to 8 mm):	
Shrinkage class (grain size 0 to 1 mm):	SKVM III
(grain size 0 to 4 mm):	SKVM III
(grain size 0 to 8 mm):	SKVB II
Expansion:	≥ 0.1% (0.2 to 1.2 %)
Grain size:	1000-1: grain size 0 to 1 mm 1000-4: grain size 0 to 4 mm 1000-8: grain size 0 to 8 mm
Processing temperature:	+ 5°C to + 30°C
Water required:	1000-1: approx. 3.50 - 4.25 litres to every 25 kg 1000-4: approx. 3.25 - 3.75 litres to every 25 kg 1000-8: approx. 3.25 - 3.75 litres to every 25 kg
Yield:	Approximately 13 l from 25 kg
Quantities required:	Approx. 19 kg/m ² per cm thickness of applied layer
Storage:	Store appropriately in dry conditions
Delivery form:	25-kg sack

Properties:

- Quick-hardening (quickly develops high strength)
- Free-flowing
- Shrink-free
- Impermeable to water
- Resistant to frost and de-icing salts

Applications:

- For outdoor and indoor applications
- For pouring under machines, crane track rails and bridge bearings
- For grouting fastening-bolts and built-in steel components in place in concrete
- For sealing joints between precast components and concrete and for closing recesses and openings in concrete
- Due to its final strength, QV 1000 is suitable for use under the highest levels of dynamic and static loading.
- Depending on the grain size, QV 1000 is used for the following depths or widths of joint:

0 to 20 mm:	QV 1000-1:	grain size 1 mm
10 to 50 mm:	QV 1000-4:	grain size 4 mm
30 mm or greater:	QV 1000-8:	grain size 8 mm

Under certain conditions during bonding, cement and cement-bound construction materials can cause a dissolvent attack on non-ferrous metals such as aluminium, copper or zinc.

The guidelines provided by the manufacturer of the construction components must also be observed.

Quality and safety:

- In accordance with the "Merkblatt für Vergussmörtel" (Pamphlet on grouting mortar) issued by the Deutscher Betonverein e. V. (German Concrete Association) and with the DAfStb (German Committee for Reinforced Concrete) guideline entitled "Herstellung und Verwendung von zementgebundenem Vergussbeton und Vergussmörtel" (Manufacture and application of cement-bound grouting concrete and grouting mortar)
- Binder in accordance with DIN EN 197
- Additives have general technical approval
- Mineral aggregates in accordance with DIN EN 12620
- Chloride-free
- Quality controlled
- Low chromate in accordance with TRGS 613

Subsurface:

Clean the subsurface. Remove any loose parts, dust, cement slurry, oil or grease. Then wet the surface thoroughly, but not enough to form puddles, before applying the mortar.

Processing:

Mix the entire contents of the QV 1000 sack with approximately 3.25 to 4.25 litres of clean water (depending on the grain size - see the

technical data) for at least 3 minutes using a compulsory mixer. The formwork must be properly sealed. The mortar or concrete must be poured without any interruption, taking care that no voids are formed and that it is de-aerated.

The mortar or concrete is to be cured in accordance with DIN 1045; this includes, for example, covering it with plastic sheeting to protect it from drying out too quickly. Different temperatures affect the setting and hardening process differently. Do not carry out works at air and surface temperatures below +5°C.

Yield:

When mixed correctly, 25 kilograms of dry mortar produce approximately 13 litres of mortar, ready to use.

Storage:

Store appropriately in dry conditions.

Delivery form:

25-kg sack

1 mm, 4 mm or 8 mm grain size (see the information printed on the sack)

Notes:

The technical details are valid at 20°C and 65% relative humidity.

This product contains cement and produces an alkaline reaction when it comes into contact with moisture/water. Therefore ensure that skin and eyes are protected. If it should come into contact with the skin or eyes, rinse them thoroughly with water. See a doctor immediately if it comes into contact with the eyes. See also the information printed on the sack.

The information provided is based on extensive tests and practical experience. It does not apply to every application situation. For this reason we recommend that you carry out a trial if necessary. Subject to technical alterations within the framework of further development. Our general terms and conditions apply.

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Further information is available from:

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