



cement CEM I 42,5 R (ep) for grouting mortar

product:

The cement **rheoment**[®] is a CEM I 42,5 R (ep). The certificate of constancy of performance 0992-CPR-01-01-01.004 DE issued by the Material Research and Testing Institute of the Bauhaus University of Weimar, affirms that **rheoment**[®] conforms with the regulations of the harmonized standard 197-1:2011-11 and further.

application:

rheoment[®] is used for gouting mortar in the following applications:

- the production of grouting mortar for the grouting of sheaths on prestressed concrete structures
- the production of mortar for grouting / filling of annulus spaces or similar

characteristic product properties:

rheoment[®] is a product which fulfils the special requirements involved in the manufacturing of a grouting mortar. When suitable machines are used for mixing the cement into the water, a very robust suspension is formed in the required working consistency. **No separate mixing-in of additives is necessary.** The amount of water required for achieving the working consistency is very small. The degree of bleeding after placement can therefore be reliably kept within extremely narrow limits.

A targeted volume change results in a non-positive bond between the individual components and provides optimum corrosion protection for steel reinforcement elements.

main properties:

- extremely free-flowable and robust
- moderate volume increase for non-positiv bond
- moderate opening time
- high early and ultimate strength
- no bleeding acc. to standard
- one-component-system

advantages:

- constant and closely controlled quality of the product minimize problems of mixing and grouting
- no problems with grouting complicated or vertical sheaths
- no sedimentation of the grout mortar in the sheath during to grout
- balanced open time for escaping trapped air
- reduction dose-error (*one-component system*)
- smooth construction sequence - time saving!
- high durability



cement CEM I 42,5 R (ep) for grouting mortar

grouting mortar by rheoment® - conformed with:

EN 447:1996	Grout for prepressing tendons – basic requirements (available at time in Germany)
EN 447:2008	Grout for prepressing tendons – basic requirements

quality control:

The consistent quality of **rheoment®** is assured by laboratory tests during the manufacturing process, and by further quality inspections of the batches awaiting dispatch. Under site conditions, the product characteristics are subject to the influence of environmental conditions (temperature, humidity, wind, direct sunlight) and working parameters (type of mixer, duration and speed of mixing). Appropriate consideration of these influencing factors on the construction site is therefore the fundamental prerequisite for optimum working.

working:

Depending on the respective application, a suitable mixing machine (colloidal mixer, hand mortar mixer, paddle-wheel mixer etc.) must be chosen for deflocculating the material. The effectiveness of the mixer must be tested prior to actual application. The w/c-ratio has to be selected to suit the requirements, working machines and weather conditions, but should be kept as low as possible (≤ 0.33).

weighed per mixing		w/c-ratio	volume per mixing
rheoment®	water		
100kg	30 liter	0,30	62,0 liter
100kg	33 liter	0,33	65,2 liter

forms of delivery:

rheoment® will be delivered loose in trucks or in bigbag or paper bag (25kg, 1.050kg per pallet) with shrink hood.



cement CEM I 42,5 R (ep) for grouting mortar

technical data:

in accordance with DIN EN 445 / 447:1996 and EN 445 / 447:2007

		actual ¹	standard– target
w/c-ratio		0.33 – 0.30	≤ 0,44 (≤ 0,40)
Apparent density of green mortar	kg/dm ³	2.04 – 2.09	
Apparent density of hardened mortar	kg/dm ³	2.02 – 2.07	
Immersion time T₀ / T₃₀ after preparation / agitated standing	s	30 – 40 / 40 - 60	≥ 30 / ≤ 80
Efflux time t₀ / t₃₀ after preparation / agitated standing	s	14 – 19 / 19 – 25	t ₀ ≤ 25 and t ₃₀ ≤ 25
bleeding (inclined tube test acc. EN 445, para. 4.4)	%	0.0 – 0.1	≤ 0.3
Bleeding (wick bleed test acc. EN 445, para. 4.5)	%	<0.01	≤ 0.3
Swelling (wick bleed test acc. EN 445, para. 4.5)	%	0.5 – 2.5	0 - 5 (-1 - 5)
setting time begin / end at 20°C (acc. EN 447, para. 6.7)	h	6.0 – 8.0 8.0 – 10.0	> 3 < 24
compressive strength (prism 160x40x40mm ³)			
24h		20 - 35	
7d	N/mm ²	45 - 65	
28d		70 - 90	≥ 30

¹ field of possible data

All data listed in the product data sheet was determined as measured values under laboratory conditions with the customary measuring tolerances. The data and their use in suitability tests, or similar, is intended to obtaining insights on the application-related suitability of the product and shall serve as an aid in planning. Guaranteed properties in the legal sense cannot be derived from this. The customer is not absolved from carrying out his own tests and making responsible decisions himself. The respective latest version of this data sheet has validity. 03.2023