

Expanfluid

Expansive admixture for shrinkage-compensating grouting injection

DESCRIPTION

Expanfluid is a powdered expanding admixture to be added to cement for preparing shrinkage-compensating, super-fluid, pumpable slurries for injection.

WHERE TO USE

Expanfluid can be used in preparing:

- grouts for filling the casings of post-tensioning cables in pre-stressed concrete;
- mortars for anchoring reinforcing rods, tension rods or studs in concrete or rock;
- slurries for filling cavities and cracks in rock or damaged concrete.

TECHNICAL CHARACTERISTICS

Expanfluid is a powdered admixture with super-plasticising and expanding action to be mixed with cement and water for preparing injection slurries with high fluidity (Marsh cone test <30 seconds) and extended pumpability.

Expanfluid can be used to prepare slurries for injection in the casings of tension cables of pre-stressed reinforced concrete in compliance with European recommendations (CEB FIP).

The expanding action of **Expanfluid** completely eliminates hydraulic shrinkage and promotes expansion both in the plastic state and during hardening. Final expansion is 200-800 $\mu\text{m}/\text{m}$, depending on the type of cement and the water-cement ratio.

In addition, **Expanfluid** curtails bleeding to levels lower

than the limits set by the CEB FIP recommendations.

APPLICATION PROCEDURE

Pour the water into the mixer (approx. 30% by weight of cement), then start the mixer and add **Expanfluid** in a dose of 3-6% by weight of cementitious binder, then add the cement.

Mix for 2 to 3 minutes and if needed, add more water until the desired fluidity is reached (Marsh cone test <30 seconds).

The slurry is pumpable for at least 2 hours (at +20°C).

CONSUMPTION

The dosage of **Expanfluid** is 3-6% by weight of cement.

PACKAGING

Expanfluid is available in 12 kg boxes containing 4x3 kg water-soluble sachets.

STORAGE

Expanfluid is stable for 12 months when stored in a dry place in its original packaging.

The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH) - item 47.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

Expanfluid contains cement that when in contact with sweat or other body fluids causes irritant alkaline reaction and allergic reactions to those predisposed. It can cause damage to eyes. During use, wear protective gloves and goggles and take the usual precautions for

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	powder
Colour:	grey
Density (g/m ³):	2.67
Dry solids content (%):	100
APPLICATION DATA	
Mixing ratio: – for injection slurry:	100 parts by weight of cement with 30-38 parts of water and 3-6 parts by weight of Expanfluid
Example of mix for injection slurry: – cement type CEM I 52.5 R (kg/m ³): – water: – W/C ratio: – Expanfluid (3%):	1435 517 0.36 43
Flow-Cone (EN 445):	< 25 seconds
Density (EN 445) (kg/m ³):	1995
Bleeding (EN 445):	absent
Compressive strength (N/mm ²): – 1 day: – 7 days: – 28 days:	40 60 75
Expansion (2 days) according to UNI 8147 (µm/m):	> 300

handling chemicals. If the product comes into contact with the eyes or skin, wash immediately with plenty of clean water and seek medical attention.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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