

Technical Datasheet Specialty Additive

Description

ELOTEX® FLOWKIT52 is an optimized polymer composition based on vinyl acetate, ethylene and acrylate, designed for dry mortar applications.

ELOTEX® FLOWKIT52 performs as a polymer binder with adhesion and cohesion properties, fluidifies as a PCE superplasticizer.

In addition to conventional PCE superplasticizers ELOTEX® FLOWKIT52 presents the following unique benefits

- it provides excellent flow and levelling properties
- perfect rheology and workability
- reduced water demand and short wet out mixing time for machine applied self-levelling compounds.

ELOTEX® FLOWKIT52 provides a strong stabilizing effect, reducing segregation, sedimentation and bleeding. No further stabilizers are needed.

ELOTEX® FLOWKIT52 enables high compressive / flexural strengths, high adhesion to substrate and overlayment, and good cohesion and flexibility within the cementitious layer. In addition, it improves abrasion and impact resistance while minimizing risks of shrinkage cracks.

ELOTEX® FLOWKIT52 allows formulators to easily develop and produce robust self-levelling floor formulations with one single multi-functional additive, saving costs for raw materials and logistics.

Technical Specifications

| | |
|-------------------|---|
| Composition | Polymers based on Vinyl acetate, ethylene and acrylates |
| Appearance | Free-flowing white powder |
| Bulk Density | 420 – 620 g/l |
| Residual Moisture | < 2.0% |
| pH-Value | 6.5 – 8.5 (as 10% solution in water) |
| Storage Stability | 6 months |

Guidelines for use

Powder Processing

Elotex powders can be blended in all commercial positive mixers with other dry additives to produce finished products in powder form. Since Elotex powders exhibit thermoplastic behaviour, mixing times should be as short as possible, and significant temperature rise caused by strong shear forces should be avoided. All hydraulically and non-hydraulically curing dry mixtures with Elotex powder may be easily mixed with water before application.

For mixing finished products in powder form, one usually places the required amount of mixing water in a suitable vessel and add the powder mixture under agitation. Too intensive agitation of the mixture may result in unwanted air inclusion. Before application, one should allow the mixture to stand for a short time. Depending on the properties of the other additives, the standing time will be in the range of approx. 1-5 minutes.

ELOTEX® FLOWKIT52

Benefits

- Optimized for use in self-levelling compounds
- Replacement of superplasticizers and redispersible polymer powders
- Strong fluidification at a much lower dosage than with conventional superplasticizers (performance and cost advantage)
- Very fast and long-lasting fluidification short mixing time and long workability time)
- Very strong stabilizing effect to avoid segregation, sedimentation and bleeding
- No additional stabilizer needed
- Useful to formulate finished products with very low emission (EMICODE EC1)
- Raw material and logistic cost savings

Recommended Applications

For modification of hydraulically setting systems.

Main application areas

- Use in systems containing cement such as self-levelling floor compounds, especially in thin-layer applications
- Specially suitable for ecologically demanding cement and gypsum containing floor paving products, in which pollution of living area by volatile organic components (VOC) must be as low as possible (EMICODE EC1)
- Also suitable for several other drymix mortar formulations for fluidification and/or for reduction of water/cement ratio (to increase strength and to reduce shrinkage)

Dosage

The amount of ELOTEX® FLOWKIT52 to be used in between 0.5 – 1.5% (by weight of drymix mortar) depending on the ultimate requirements of the product.

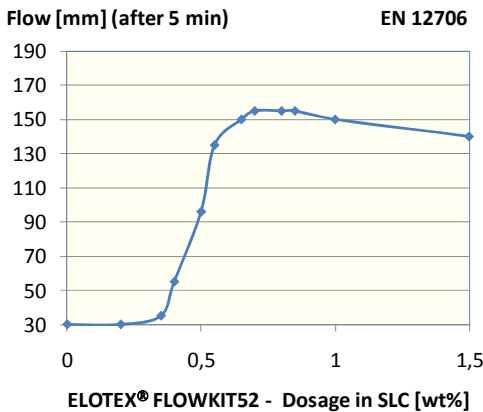
Compatibility

ELOTEX® FLOWKIT52 is compatible with all other mortar additives such as redispersible powders, accelerators, retarders, cellulose ethers and other stabilizers / thickeners, defoamers, shrinkage reducing additives etc.

Basic formulation of a fast setting self-levelling smoothing compound

| Ingredients (dry mortar mixture) | Parts by weight (m%) |
|---|----------------------|
| Portland cement | 21.00 – 25.00 |
| Calcium aluminate cement | 11.00 – 13.00 |
| Calcium sulphate (alpha hemihydrate) | 3.00 – 5.00 |
| Calcium hydroxide (hydrated lime) | 0.00 – 4.00 |
| Quartz sand | 40.00 – 50.00 |
| Limestone powder | 8.00 – 12.00 |
| ELOTEX® FLOWKIT52 | 0.50 – 1.50 |
| Retarder (e.g. tartaric acid) | 0.10 – 0.30 |
| Accelerator (e.g. lithium carbonate) | 0.00 – 0.10 |
| Defoamer (powder) | 0.00 – 0.20 |
| Stabiliser (CE, e.g. BERMOCOLL E 230 X) | 0.00 – 0.06 |
| Mixing Water | 21 – 23% |

Test Results

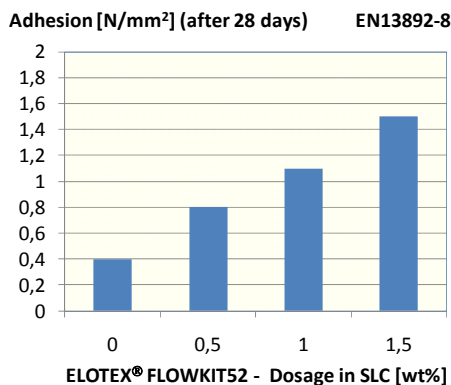


Flow (EN12706) = 150 – 155 mm

Workability time = approx. 30 min

Compressive strength after 24 h = approx. 20 N/mm²

Adhesion after 24 hours = 1,5 N/mm²



Quality, Safety and Environment

We recommend all individuals using Elotex powder, or coming in contact with it, to observe the separate Safety Data Sheets. Our safety specialists will be pleased to advise you regarding safety, health and environmental issues of our products. Elotex has been certified according to DIN EN ISO9001 and DIN EN ISO 14001.

Packaging, Storage and Handling

Standard packaging: 25 kg paper sacks with polyethylene liners.

Store in original packaging.

As a basic rule it is recommended to store Elotex powders in a dry location at temperatures below 25°C and to process within six months after receipt of the delivery. Sacks that are stored under pressure, at increased temperature, damaged or left open for an extended period, increase the risk of caking of the powder.

Product Liability

The above information and recommendations are based upon our experience and are offered merely for advice. They do not absolve the consumer from making his own tests. Elotex AG, their representatives or distributor organizations have no control over the conditions under which Elotex powders are transported, stored, handled or used. Responsibility for damage arising from the use of our products cannot be derived from the recommendations given. The observance of any intellectual property rights of third parties is the responsibility of the consumer in each case.

Technical information may not be passed on to any third party without our previous consent.

Other Information

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