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# Melflux® 6681 F / Melflux® 4930 F

Fast adsorbing PCE superplasticizers optimized for
very short mixing times in self-levelling underlayments (SLUs)

## General

**Melflux®** is the brand name of BASF Construction Additives GmbH for its specialty superplasticizers (dispersants) based on polycarboxylate ethers (PCEs).

**Melflux®** types are highly efficient superplasticizers with excellent fluidification and water reduction properties for dry mortar systems, such as SLUs. All **Melflux®** grades are very low in VOC (volatile organic components), therefore useful to formulate SLUs according to **EMICODE® EC-1** (very low VOC emission standard).

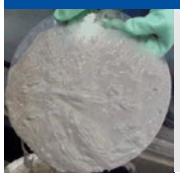
## Innovation

**Melflux® 6681 F** and **Melflux® 4930 F** are new PCE powder developments with outstanding performance features and benefits. When using **Melflux® 6681 F** or **Melflux® 4930 F**, both hand- and machine-applied SLUs can be mixed with extremely short mixing times to achieve the desired homogeneous and fluid fresh mortar consistency. Even challenging SLUs processed in screw mixing pumps with only few seconds until pumping are showing very favorable performances.

Field tests with screw mixing pump

### Conventional PCE

Cementitious SLU after short mixing time



- pasty consistency
- inhomogeneous

### Melflux® 6681 F

Cementitious SLU after short mixing time

- fluid consistency & self-levelling
- homogeneous, no lumps

| Features | Benefits |
|---|---|
| ▶ Very efficient dispersing effect (electrostatic and steric repulsion) with mineral particles such as mineral binders (e.g. Portland cement, calcium aluminate cement, calcium sulphate) and mineral fillers (e.g. limestone powder) | ▶ Strong fluidification and water reduction<br>▶ Self-levelling rheology (smooth SLU surface)<br>▶ Very dosage efficient (economic benefit) |
| ▶ Very fast dissolution of PCE powder in water<br>▶ Very fast adsorption of PCE on mineral particles<br>▶ Very fast dispersing effect of mineral particles | ▶ Very fast fluidification (final consistency) after short mixing time **(Melflux® 6681 F** even faster than **Melflux® 4930 F)**<br>▶ Homogeneous fresh mortar (no lumps)<br>▶ Higher robustness even at lower shear rates<br>▶ Lower pumping pressure (less wear off) |
| ▶ Very low retardation of ternary binder systems (both **Melflux® 6681 F** and **Melflux® 4930 F**)<br>▶ **Melflux® 4930 F**: low retardation of Portland cement and calcium sulphate alpha-hemihydrate | ▶ Very fast and high strength development of ternary binder SLUs (for high quality floor installations)<br>▶ **Melflux® 4930 F**: fast and high strength development of Portland cement based systems and calcium sulphate alpha-hemihydrate based systems |
| ▶ No interaction with other formulation components (compatibility with citric acid retarder and other additives typically used in SLUs) | ▶ Versatile applicability and robustness in different kinds of cementitious and gypsum based SLU formulations |

## Lab mixing test method to investigate different speed of fluidification in a cementitious SLU with fine filler


**Further information (test formulations and further test results) is available on demand. Please feel free to contact our local sales representatives.**



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