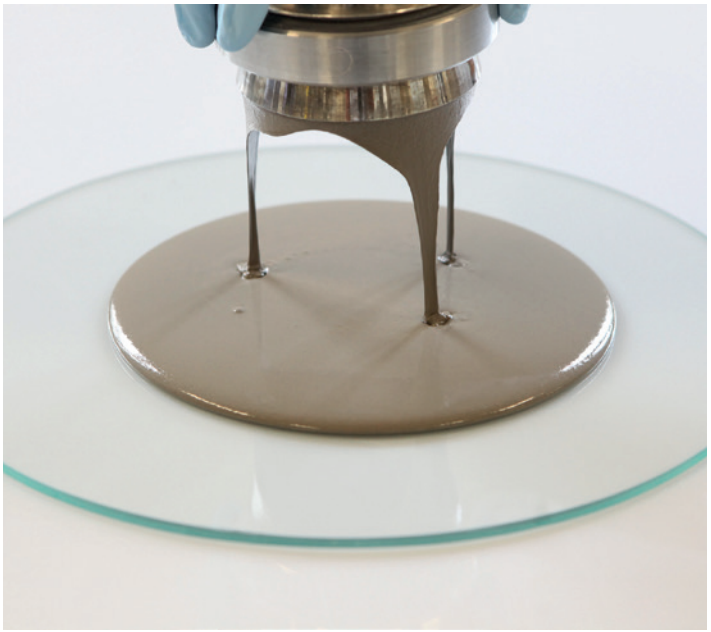
We create chemistry

Melflux® BF 11 F

Slump retaining superplasticizer powder for cementitious dry mortars

What is Melflux® BF 11 F?

Melflux® BF 11 F is a spray dried powder of modified polycarboxylate ether (PCE). It allows to formulate dry mortars with very good slump retention without retardation of cement hydration. **Melflux® BF 11 F** does not significantly contribute to initial fluidification of the mortar and therefore it is typically combined with a conventional polycarboxylic ether based superplasticizer. By this two-component concept it is possible to adjust constant mortar consistency for a certain period of time even under severe conditions such as elevated temperatures or with very reactive Portland cement grades.



What is the application field of Melflux® BF 11 F?

Use in cementitious dry mortars, if strong slump loss occurs:

- Non-shrink grouts (NSG)
- Ultra-High Performance Concretes (UHPC)
- Injection mortars
- Dry mix concretes
- Repair mortars
- Flowing floor screeds

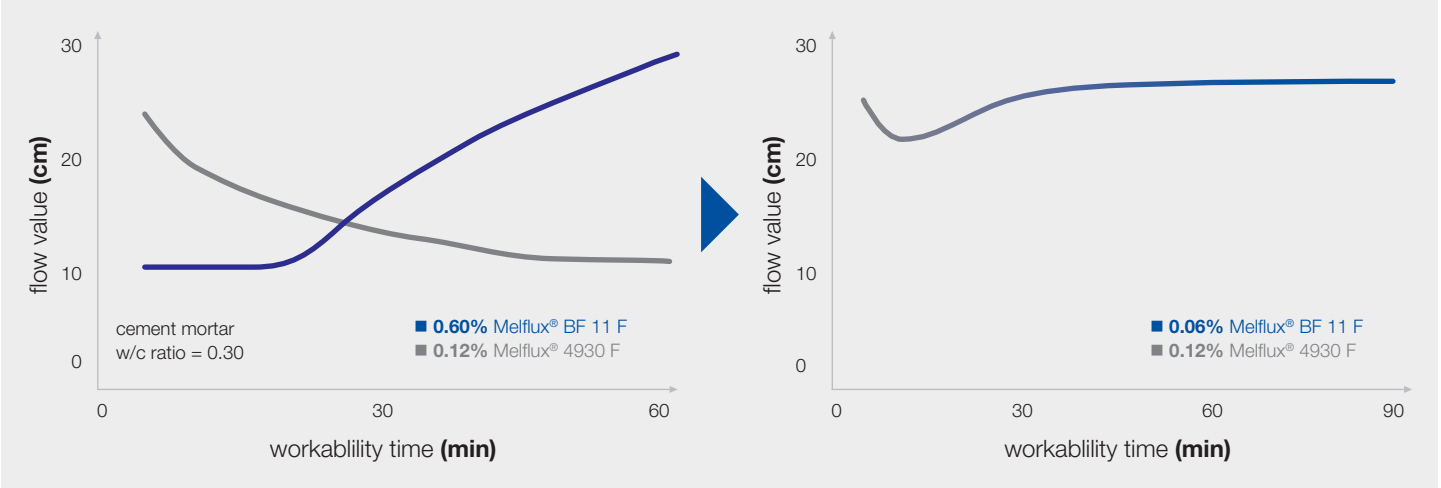
How does Melfux® BF 11 F work?

Toolbox = Superplasticizer + Slump Retainer

- **Superplasticizer:** fast adsorption ▶ good initial flow
- **Slump Retainer:** delayed adsorption ▶ good flow retention

Technical Recommendations

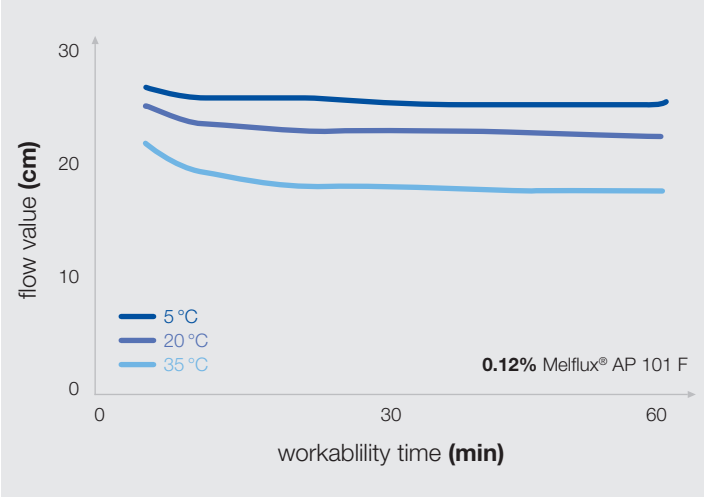
- Dosage recommendation for **Melflux® BF 11 F**: 0.02 – 0.20% (by weight of cement)
- The recommended ratio of **Melflux®** Superplasticizer and **Melflux® BF 11 F** is approximately 2:1 – 1:1.
- **Melflux® BF 11 F** should not be combined with superplasticizers based on naphthalene sulphonate.

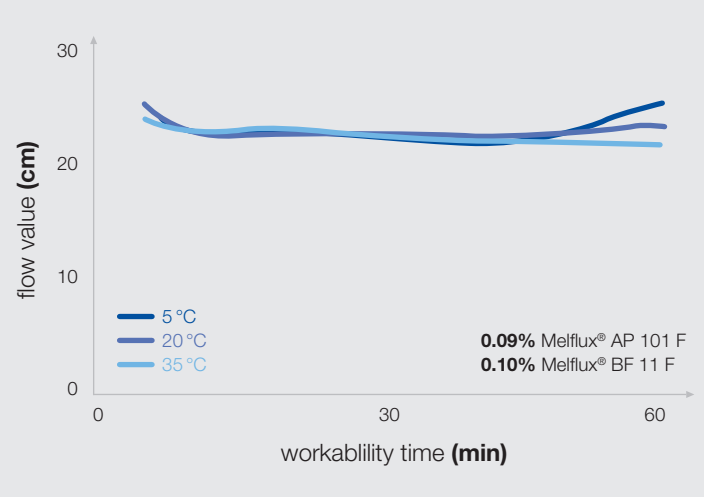


Features	Benefits
▶ Adjustable flow and slump retention in combination with all Melflux® types	▶ Constant flow values over a long time
▶ Constant flow even at different temperatures	▶ Robustness against different cement qualities
▶ Very low impact on strength development	▶ Robustness / slump retention even at high temperatures
	▶ Advantageous compared with retarders

Benefits at different temperatures

With a combination of a conventional **Melflux®** superplasticizer and **Melflux® BF 11 F** a constant flow is achievable even at high temperatures. Example with **Melflux® AP 101 F** and **Melflux® AP 101 F** plus **Melflux® BF 11 F** in figures below (cement mortar, w/c ratio = 0.30)





Strength development

Due to the chemical nature, **Melflux® BF 11 F** has no significant impact on the early-strength development.

Superplasticizer		Slump retainer		Compressive strength (MPa)		
				1 d	3 d	28 d
Melflux® AP 101 F	0.12 %	–	–	44.4	71.9	71.8
Melflux® AP 101 F	0.09 %	**Melflux® BF 11 F**	0.10 %	42.3	68.9	71.0

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