

**Retarding agent for the ready-mix concrete industry****F 50 (VZ)**

Art. – No. 03.100.

APPLICATION AREA:

- For the production of ready-mix-concrete with prolonged settling time for general building construction, excavation, and civil engineering. Construction joints can be avoided and extended periods of work stoppage bypassed.
- Through low hydration heat development especially for placing massive concrete structures.
- The application of F 50 (VZ) is used to improve the characteristics of unset and hardened concrete.

CHARACTERISTIC:

F 50 (VZ) facilitates

- a lengthening of the settling time through the delay of cement hydration.
- a reduction of the hydration heat and a decrease in heat cracks.
- a light plasticification of the cement.

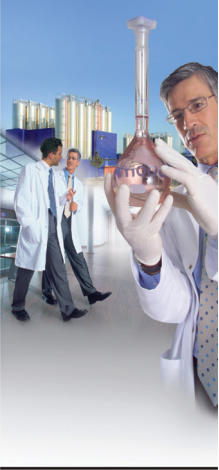
TECHNICAL SPECIFICATIONS:

Raw material base	Saccharose/phosphate salt
Color:	brown
Form:	liquid
pH - value	$9,0 \pm 1,0$
Density (at 20 °C):	1.10 ± 0.02 g/ml
Chlorine content	≤ 0.10 M-%
Alkali content	≤ 8.5 M-% (as Na_2O -equivalent)
Valid solids content	15,3 – 17,9 M-%
Settling temperature:	over + 5 °C
Shelf life:	approx. 12 months - do not expose to sunlight or frost during storage

DOSAGE:

Recommended dosage range: 0.2 – 0.6 M-% of the cement weight.
The required amount of additive is based on the concrete characteristics in demand (refer to the table on the following page) and must be determined during an initial test in accordance with DIN EN 206-1.

TECHNICAL DATA SHEET



	Delay time in hours					
	3	5	7	9	11	14
Concrete -temp.	Dosage F 50 (VZ) in kg per 100 kg CEM I 32,5 R					
+ 10 °C	-	-	-	0,23	0,30	0,45
+ 15 °C	-	-	0,23	0,30	0,38	0,53
+ 20 °C	-	-	0,30	0,38	0,53	-
+ 25 °C	-	0,23	0,38	0,53	-	-
+ 30 °C	0,23	0,30	0,45	-	-	-

1) Besides the mixing recipe the delay times depend on the raw materials in use. Therefore the specifications can only be used as reference values. The respective dosage amount is to be determined through preliminary tests.

PROCESSING INFORMATION:

- The dosage of F 50 (VZ) should take place at the factory with the last third of the mixing water or after it is completely added.
- Make sure that sufficient mixing time is allocated at the factory. The same applies when dosing at the construction site.
- Please observe the standards outlined in DIN EN 206-1 and DIN 1045-2 when using concrete additives.

VERIFICATION OF SUITABILITY / CERTIFICATION:

- complies with DIN EN 934 – 2 table 8: Retarding agent
- complies with DIN V 18998
- applicable in concrete with alkali sensitive aggregate according to DIN V 20000-100, Section 8.2
- complies with the requirements of ZTV-ING
- certification number of the retarding agent: 0672 - CPD - 1111

WORK SAFETY:

- not a hazardous material according to the ordinance on hazardous substances
- not a hazardous material in terms of the transportation guidelines
- WGK 1 (self classification) low hazardous to waters
- observe the safety data sheet

FORM OF DELIVERY:

35 kg PVC – can bfn
 240 kg Poly-drum bfn
 1100 kg Container net
 Tanker truck delivery on request

NOTE:

Always observe general work hygiene when using our products. The raw materials we process and the products we produce are subject to strict factory inspections. We reserve the right to make changes that signify a technical advance. All the information applies to the normal case scenario, and has been given to the best of our knowledge. We cannot be held legally liable as a result of the information included in this leaflet. It is stressed that our products and the procedure must be tested for suitability with your circumstances.

EFFECTIVE: 09/11