





# Retarding agent for the ready-mix concrete industry

# F 100 (VZ)

Art. - No. 03.101.

# **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 100 (VZ) is used to improve the characteristics of unset and hardened concrete.

### **CHARACTERISTIC:**

F 100 (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.

#### **TECHNICHAL SPECIFICATIONS:**

Raw material base Phosphate salt

Color: red Form: liquid  $pH-value: 10,0\pm1,0$  Density (at 20 °C):  $1.18\pm0.02$  g/ml Chlorine content:  $\leq 0.10$  M-%

Alkali content: ≤ 8.5 M-% (as Na O-equivalent)

Valid solids content: 17,6 - 19,4 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 - 1.5 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	1 <i>7</i>	20
concrete	Dosage F 100 (VZ) <sup>1)</sup>							
-temp.	in kg per 100 kg CEM I 32.5 R							
+ 10 °C	-	-	0.20	0.30	0.40	0.60	0.80	0.90
+ 15 °C	-	-	0.30	0.40	0.50	0.70	1.00	1.40
+ 20 °C	-	0.20	0.40	0.50	0.70	1.00	1.30	
+ 25 °C	0.20	0.30	0.50	0.70	0.90	1.40		
+ 30 °C	0.30	0.40	0.60	0.80	1.10			

<sup>1)</sup> 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 100 (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 of 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

230 kg Poly-drum bfn

1200 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

