

# PANTARHOL 90 (VZ)

Item No 0400

Retarding admixture with plasticizing effects for concrete acc. to EN 934-2

# FIELDS OF APPLICATION

PANTARHOL 90 (VZ) is a retarding admixture that extends the workability time of concrete purposefully. Construction joints can be avoided and longer breaks during the construction process can be bridged.

### **DOSAGE**

Recommended dosage range 0.2 – 1.0 mass-% of the cement content;

is equivalent to 2 – 10 ml per kg cement.

The table below shows the recommended dosage for achieving the required workability time in dependence to concrete's temperature.

Workability Time	Recommended dosage regarding the concrete temperature		
	+10 °C	+20 °C	+30 °C
04 hours	0.1	0.2	0.2
08 hours	0.2	0.3	0.4
12 hours	0.4	0.5	0.6
16 hours	0.6	0.7	0.8
20 hours	0.7	0.9	1.0
24 hours	0.8	1.0	-

<sup>\*</sup> Dosage in kg per 100 kg CEM I 32,5 R

The presented dosage ranges are just guidelines for concrete produced with CEM I 32,5 R. The dosage varies accordingly to the applied cement sort. Different cement sorts might react diversely. Applying CEM III/A can reduce the dosage quantity, CEM I 42,5 R may increase it.

# **WORKING PRINCIPLE**

By retarding the cement hydration the workability time of concrete is extended. The retarding effect is influenced by dosage, but also by the type of cement and by temperature.

PANTARHOL 90 (VZ) has a plasticizing effect. Therefore either the water/cement ratio can be reduced or the flow diameter can be increased.

## **TECHNICAL DATA**

	1.	
Homogeneity	homogenous	
Colour	brown	
State	liquid	
Density	1.04 ± 0.02 g/cm <sup>3</sup>	
pH-value	5 ± 1	
Chloride content	< 0.10 mass-%	
Alkali content	< 1.0 mass-%	
(Na₂O equivalent)		
Workability	from +1 °C	
Shelf life	approx. 1 year from	
	date of production if	
	stored properly	
Storage conditions	Store in unopened,	
	original sealed packag-	
	ing between +5 °C and	
	+25 °C. Protect from	
	frost and insolation.	



#### PROCESSING INDICATIONS

PANTARHOL 90 (VZ) is either added to the tempering water or to the ready mixed concrete.

This product is not classified as hazardous according to the EC directives, regulations on hazardous substances and forwarding instructions. The generally accepted precautions for handling chemicals must be followed. The corresponding Material Safety Data Sheet is available upon request.

#### **PACKAGING**

- 30 I can
- 200 I barrel
- 1000 I container
- loose by bulk supply

#### **SPECIAL INDICATIONS**

Directive for concrete with extended workability times (retarded concrete) is to be observed.

#### **REMARKS**

This information describes the application- and processing possibilities of a product and its operation principles under regular conditions. Having no influence on the further application and processing, especially in conjunction with other construction materials, the given indication are neither a warranty in respect of the product's properties or its fitness for a particular purpose nor a full instruction of use. This information, any other recommendation or verbal advice are not binding and do not infer to any liability or legal demand.

Due to continuous further development, the most recent Technical Data Sheet is valid and will be supplied on request. All orders are accepted subject to our current general terms and conditions.

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SUITABILITY- AND PRE-TESTS ARE NECESSARY BEFORE APPLYING THE CONCRETE ADMIXTURE!