

# POZZOLITH<sup>®</sup> 132R

Water reducing agent to produce low slump loss flowing concrete

## DESCRIPTION

**POZZOLITH 132R** is a chloride free liquid admixture based on modified lignosulphonates and synthetic materials.

The admixture delays the initial hydration of cement thus retarding setting times and extending workability. However, the hardening process is not substantially modified, so that an increase in strength is obtained in proportion to the reduction in mixing water.

### Compatibility

**POZZOLITH 132R** is compatible with Portland pozzolanic and slag cements. In the presence of fly ashes, if high early strengths are required, the use of other BASF's admixtures is recommended. It is compatible with all types of air entraining admixtures approved under UNI, ASTM, AASHTO, DIN, etc. standards for the production of entrained concrete. However, the combined use of **POZZOLITH 132R** and Micro-Air VR requires the two admixtures to be added separately.

### Workability

The addition of **POZZOLITH 132R** increases concrete workability without decreasing concrete strength. **POZZOLITH 132R** is specially recommended for the production of flowable concrete (slump  $\geq$  200mm). To obtain a flowable concrete, the addition of 0.4 litres of **POZZOLITH 132R** per 100kg of cement to a concrete at plastic consistency (slump = 100mm) is found to be normally sufficient.

### Cohesion

The use of **POZZOLITH 132R** with concrete increases cohesion and considerably reduces segregation.

## FEATURES AND BENEFITS

- Higher workability and easier placement even at high temperature
- Extended workability
- Retardation of setting times without loss in strength
- Easy and rapid pumping operations
- Higher ultimate strength
- Higher durability and permeability
- Improved architectural concrete
- Better surface finish

## TYPICAL PERFORMANCE DATA

### Setting Times

Setting times are dependent on concrete temperature, ambient conditions and mix design.

The addition of **POZZOLITH 132R** modifies setting times as shown in Table 1

Table 1: the influence of **POZZOLITH 132R** on concrete setting time (average values)

<b>POZZOLITH 132R</b> (% by weight of cement)	Initial set retardation (hrs)	Final set retardation (hrs)
0.0	0.0	0.0
0.2	0.5	0.5
0.4	2.0	2.0
0.6	4.5	4.5
0.2	8.0	8.0

The data on setting time retardation effected by **POZZOLITH 132R** is intended only as a guide. To have more precise data in varying operating conditions, setting time test should be carried out on the actual materials used at the job-site and in the same ambient conditions.

### Strength

The reduction of water/ cement ratio to an extent of 5 to 10% made possible by the addition of **POZZOLITH 132R** improves the compressive strength considerably. Some typical strength values are shown in Table 2.

### Impermeability and Durability

The lowering of water/ cement ratio reduces the porosity resulting in a more dense impermeable concrete. Thus, the ingress of aggressive agents can be reduced considerably thereby extending durability.

## APPLICATION

### Dispensing

**POZZOLITH 132R** is a ready-to-use liquid product. It is introduced into the mixer at the same time as the mixing water.

## DOSAGE

The dosage **POZZOLITH 132R** can vary between 0.2 and 0.7 litres/ 100kg of cement, depending on the mix proportion and ambient conditions.

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The optimum dosage is 0.4 litres/ 100kg of cement approximately. Higher dosage levels (0.5 – 0.7 litres/ 100kg of cement) allow workability to be extended even at very high temperatures ( $\geq 30^{\circ}\text{C}$ ).

## PACKAGING

Available in 20 litre-carboy, 205 litre-drum and bulk delivery.

## SHELF LIFE

**POZZOLITH 132R** can be stored for 12 months if kept in the original unopened packaging at temperatures above  $0^{\circ}\text{C}$ . If frozen, thaw it at  $20^{\circ}\text{C}$  and completely reconstitute by mild agitation. Do not use compressed

air. Other admixtures, rain water, or any contamination must not penetrate into a container of **POZZOLITH 132R** during storage.

## PRECAUTIONS

**Health:** **POZZOLITH 132R** does not contain any hazardous substances requiring labelling.

It is safe for use with standard precautions followed in the construction industry, such as use of hand gloves, safety goggles, etc.

For detailed Health, Safety and Environmental recommendations, please consult and follow all instructions in the product Material Safety Data Sheet.

Table 2: typical of strength values provided by concrete containing  $310\text{kg/m}^2$  Portland cement. Sand (fineness modulus = 2.90) = 36% coarse aggregate (maximum size = 25mm) = 64%. Curing at  $20^{\circ}\text{C}$

POZZOLITH 132R (litres/ 100kg cement)		Water/ cement ratio	Slump (mm)		Compressive Strength ( $\text{N/mm}^2$ )	
			1 day	3 days	7 days	28 days
0.0	0.6	150	7.5	15.5	26.1	35.2
0.2	0.56	165	9.2	20.1	31.8	44.6
0.4	0.54	165	6.7	20.3	33.0	45.7
0.6	0.53	155	1.0	19.8	34.2	47.3

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## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

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