BASF
The Chemical Company

POZZOLITH® 300N

Water reducing/plasticizing admixture

CE

CE Approved – Certificate No. 0086-CPD-469071
EN934 part 2 table 2

Description of Product
POZZOLITH® 300N is a ready-to-use, liquid admixture for making more uniform and predictable quality concrete.

POZZOLITH® 300N complies with:

- EN 934-2
- ASTM C-494 Type A
- WRC Approved - for contact with Potable Water Water Regulations Advisory Service (WRSR) approval listing 0208520

Fields of Application
- Increased Strength - compressive and flexural (Table 1)
- Relative Durability to Damage from Freezing and Thawing - well above industry standards
- Reduced Water Content Required for a given workability
- Normal Setting Characteristics (Table 2).

Features and Benefits
Concrete with POZZOLITH® 300N admixture sets at a rate comparable to plain concrete while providing the following special qualities:

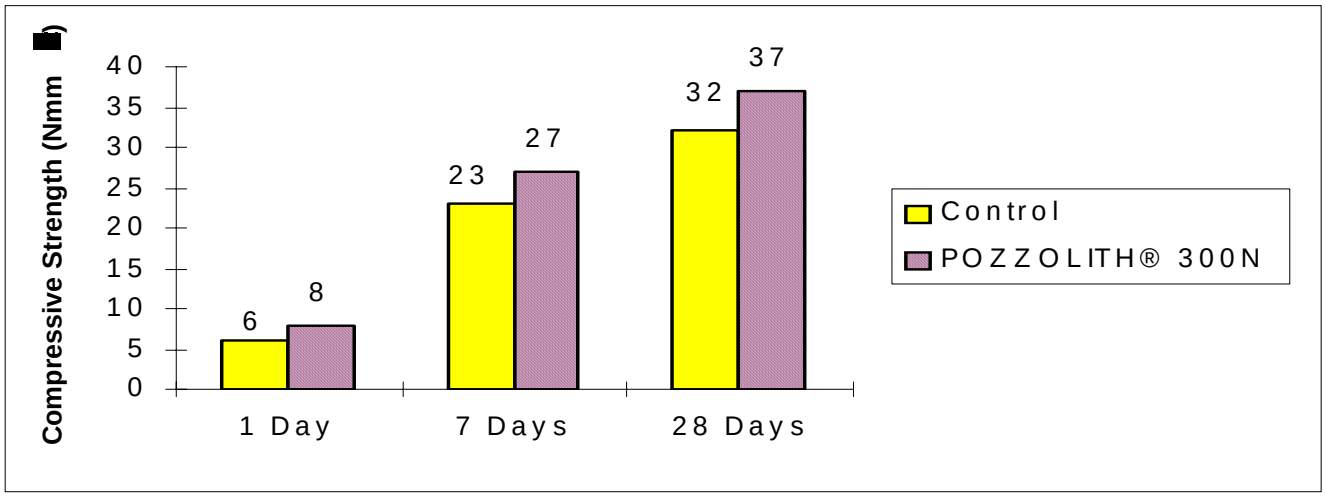
- Improved Workability
- Reduced Segregation
- Superior Finishing Characteristics for flatwork and cast surfaces
- Effective as a single admixture or as a component in a POZZOLITH® System.

Technical Data/Typical Properties

Appearance	Brown liquid
Specific gravity @ 20°C	1.20 g/cm^3
pH-value	5.0
Alkali content (%)	Less than or equal to 0.5
Chloride content (%)	Less than or equal to 0.10
Chlorine content (%)	Less than or equal to 0.10

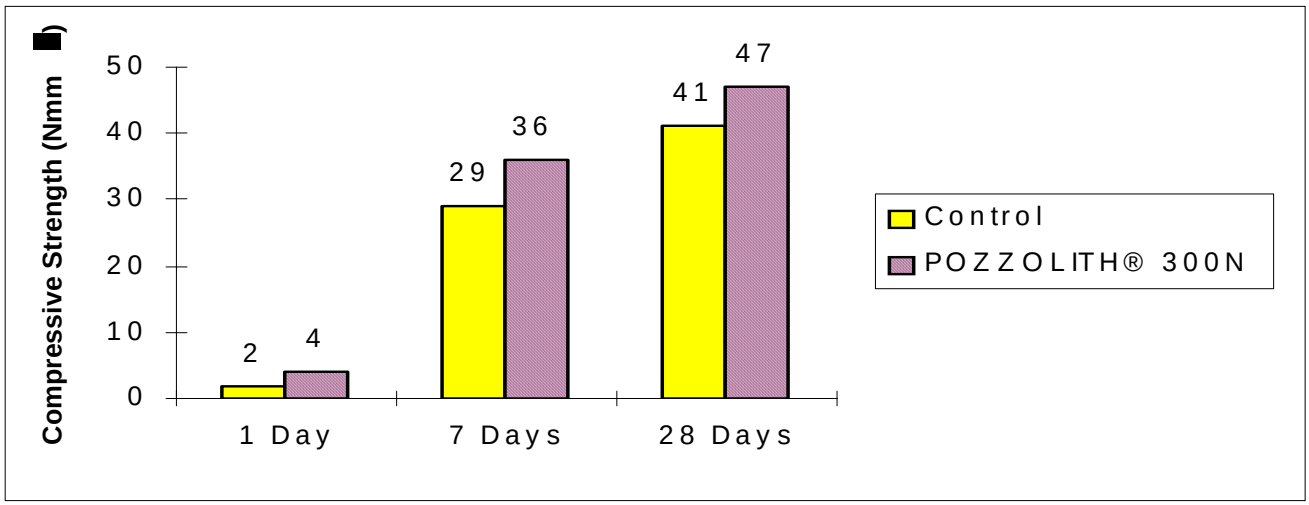
Typical Results
Ambient Temperature of 22°C

- Average of results from trials using 13 different cements.
- Cement content 280 Kg per cubic metre and 100 mm slump.
- POZZOLITH® 300N at 0.2% by weight of cement.



Ambient Temperature of 10°C and 22°C

- Mixes cured for 1 day @ 10°C and then for 27 days @ 22°C.
- Cement content 300 Kg per cubic metre and 90 mm slump.
- POZZOLITH® 300N at 0.2% by weight of cement.



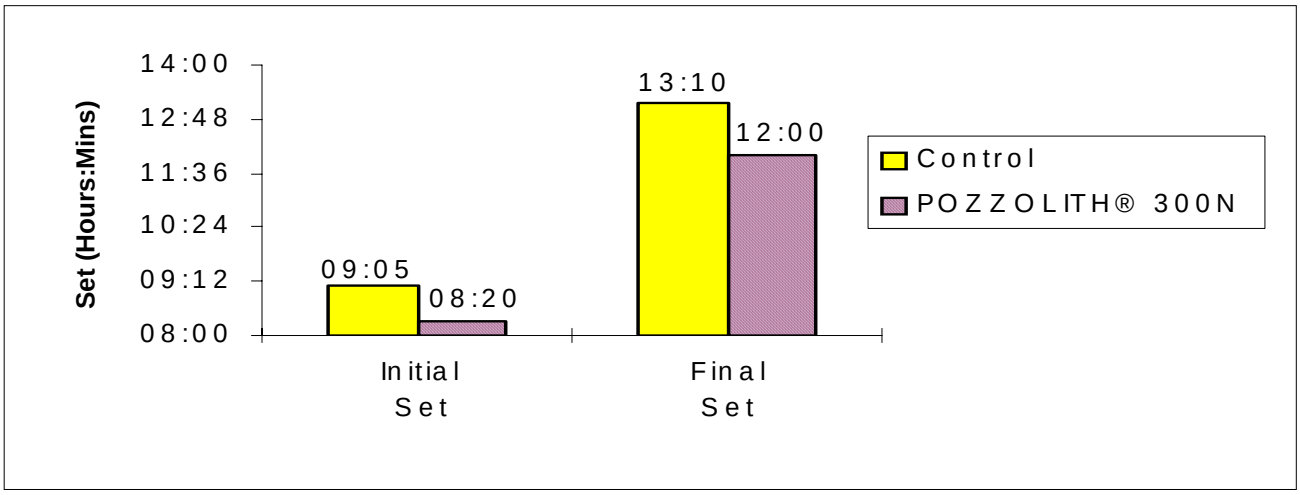


Table 1. Strength performance average of thirteen tests using thirteen different brands of type 1 cement

Non-Air-Entrained Concrete						
Conc. Temp: 22°C			Air Temp: 22°C			
Average Mix Data - Cubic Metre						
Cement Content			279 Kg/m^3			
Slump			10 cm			
Air Content			2%			
POZZOLITH® 300N			195 ml 100 Kg cement			
Average Compressive Strength						
	1 Day		7 Days		28 Days	
	NMM^{-2}	% of Control Mix	NMM^{-2}	% of Control Mix	NMM^{-2}	% of Control Mix
Plain	6.3	100	22.5	100	31.9	100
POZZOLITH® 300N	8.2	129	27.4	122	36.7	115
Increase Over Plain	1.9		4.9			4.8
Average Compressive Strength of 13 different cements						
	1 Day		7 Days		28 Days	
	Plain	POZZOLITH® 300N	Plain	POZZOLITH® 300N	Plain	POZZOLITH® 300N
High Strength	7.4	11.4	26.0	30.8	37.7	40.7
Low Strength	4.0	5.9	18.1	25.3	25.2	29.5
Spread Strength	3.4	5.5	7.9	5.5	12.5	11.2

Table 2. Compressive Strength and setting time performance

Non-Air-Entrained Concrete						
Conc. Temp: 10°C			Air Temp: 10°C			
Mix Data						
	Cement (Kg/m^3)		Slump (cm)		Air (%)	
Control	298		8.9		2.0	
POZZOLITH® 300N (1)	299		8.9		3.1	
Compressive Strength						
	10°C (1)		22°C (3)			
	1 Day		7 Days		28 Days	
	NMM^{-2}	% of Control Mix	NMM^{-2}	% of Control Mix	NMM^{-2}	% of Control Mix
Control	1.9	100	28.8	100	41.2	100
POZZOLITH® 300N	4.0	207	35.7	124	46.5	113
	Initial Set 3.5 N/mm^2 Hr:Min		Final Set 27.6 N/mm^2 Hr:Min		Accelerated Hr:Min	
Control	9:05		13:10		X	
POZZOLITH® 300N	8:20		12:00		1:10	

(1) POZZOLITH® 300N used at 195 ml per 100 Kg of cement.
(2) Specimens made at concrete temperature of 10°C and stored in constant temperature room at 10°C tested at 1 day.
(3) Specimens made at concrete temperature 10°C and stored in laboratory air at 22°C for first 24 hours; thereafter, cylinders moist cured at 22°C.

Application Procedure
Dosage
For most concrete mixes using average concrete ingredients, POZZOLITH® 300N admixture is recommended for use at a rate of:

By Volume - 0.15 to 0.50 litres per 100 Kg of cement (binder).

By Mass - 0.18 to 0.60 kg per 100 Kg of cement (binder).

Due to variations in job conditions and concrete materials, dosage rates other than the recommended amounts may be required. In such cases, consult your local BASF Construction Chemicals (UK) representative.

Trial mixes should be made with job materials and approximating job conditions to determine dosage rates and performance.

Application
POZZOLITH® 300N admixture is recommended for use in concrete where improved, normal setting characteristics are desired. As a result of the above advantages, this admixture improves pumped concrete, shotcrete (wet mix), and conventionally placed concretes. It improves plain, reinforced, precast, prestressed, lightweight or normal weight concrete.

POZZOLITH® 300N admixture can be used with air entraining cements and air-entraining admixtures approved under AASHTO, ASTM and CRD specifications - including those manufactured by BASF - when air-entrained concrete is desired. When used in conjunction with another each admixture must be dispensed separately into the mix.

This admixture can be used in either white or coloured architectural concrete.

Packaging
POZZOLITH® 300N admixture is supplied in 210 litre drums and bulk.

Storage
POZZOLITH® 300N must be stored in a place where temperature does not drop below +5°C. If product has frozen, thaw at +3°C and agitate until completely reconstituted. Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult BASF IBC Admixture Systems Technical Services Department.

Shelf Life
12 months if stored according to manufacturer's instructions in unopened containers.

Watchpoints
If POZZOLITH® 300N admixture has frozen, thaw at temperatures above 2°C and completely reconstitute by mild mechanical agitation. Do not use pressurised air for agitation.

BASF IBC Admixture Systems Limited
Unit 143 Baldoyle Industrial Estate,
Baldoyle,
Dublin 13,
Ireland
Tel: +353 (1) 8321005
Fax +353 (1) 8393539
www.basf-ibc-admixture-systems.ie

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Health and Safety
*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Spillage
Chemical products can cause damage; clean spillage immediately.