

REC PLAST ZA-24

SHRINKAGE REDUCING ADMIXTURE

DESCRIPTION

Rec Plast ZA- 24 Shrinkage Reducing Admixture is a liquid admixture for concrete or mortar which significantly reduces the plastic and drying shrinkage in cementitious materials and help to control the curling, thus limiting the risks on job sites.

Rec Plast **ZA-24** impacts three types of shrinkage:

- Plastic shrinkage
- Drying shrinkage
- Autogenous shrinkage

It gives a homogeneous and non-segregating concrete, mortar and grout.

PRIMARY APPLICATIONS

Rec Plast ZA- 24 is recommended for all areas of use of high-performance cementitious production and requiring shrinkage reduction and long-term durability

- Ready mix concrete
 - Concrete with high resistance against aggressive media
 - Precast concrete
 - Hot weather concreting
 - Highly durable concrete
 - Wet mix shotcrete
 - Mortars and Grouts
 - Watertight concrete reservoirs
 - Sewage treatment plants
 - Dams
 - Concrete in marine environments
 - Thin bonded topping slabs
 - GFRG (glass fiber reinforced concrete)
- and many other cementitious applications

PROPERTIES

- Efficiency in plastic, drying and chemical shrinkage reaction
- Significantly reduces drying shrinkage by as much as 80% at 28 days, and up to 50% at one year or beyond as measured per ASTM C157
- Reduces the potential for slab curling
- Improved impermeability, resulting in improved concrete durability
- Allows greater joint spacing
- Minimizes risk of shrinkage for the same joint spacing
- Impact on compressive and flexural strengths
- Reduced risk of cracks
- Good adhesion - ease of pumping. No bleeding
- Good workability - excellent surface appearance
- Minimal bleed water - excellent concrete quality
- High elastic modulus - superior load bearing capacity
- Impact on flow ability
- Impact on resistance to freezing & thawing
- Reduces carbonation
- Reduces compressive creep

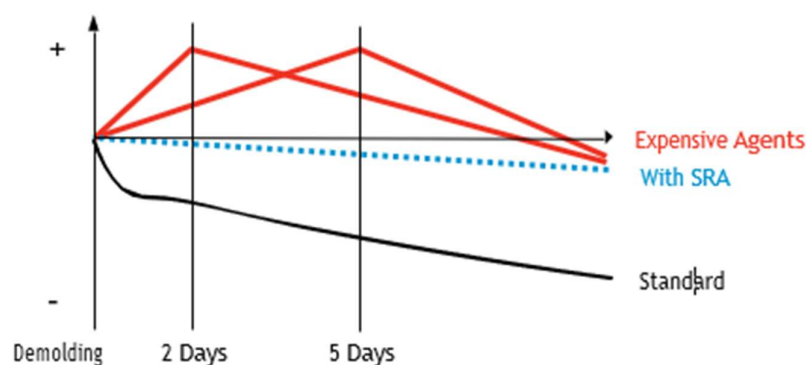
TECHNICAL INFORMATION

Appearance	Liquid Colorless (Slightly yellow)
Specific Gravity.	1.01
Chloride content	NIL– BS 5075

WORKING MECHANISM

Rec Plast ZA-24 contains no expansive materials, but instead acts chemically to attack the primary mechanism causing shrinkage.

Drying shrinkage of concrete is a function of several mechanisms. The primary causes derive where internal relative humidity is in excess of 40% at the surface tension of water. As the water filled pores lose moisture, curved menisci are formed and the surface tension of the water pulls the walls of the pores. Rec Plast ZA-24 reduces the surface tension. With reduced surface tension, the force pulling in on the walls of the pores is reduced and the resultant shrinkage strain is reduced.



STANDARD

BS EN 934-2 ASTM C1582

PACKAGING

Rec Plast ZA-24 is supplied in: 1000 liters containers
210 liters containers

SHELF LIFE

Rec Plast ZA-24 can be stored up to 1 year from manufacturing date under cover, out of direct sunlight and protected from extreme temperatures

DIRECTION OF USE

Rec Plast ZA- 24 should be dispensed after all concrete constituents are charged in the central mixer, must not be allowed to come into contact with other admixtures prior to being mixed into the concrete. The mix water content should be reduced to account for the quantity of Rec Plast ZA-24 used. It may also be added into the transit mixer at the point of discharge, but an additional mixing time of 5 minutes is required and the concrete should be visually verified for uniformity.

DOSAGE RATES

Range of dosage rates: depending on the application, the dosage of Rec Plast ZA-24 varies from 0.5 to 2.0% of the binder weight. For production of a normal flooring concrete, the recommended dosage is approximately 1%. Dosage above the recommended values can be practiced unless adequately tested. Still, the required dosage for a specific job with controlled drying shrinkage should be determined by in-situ trials.

EFFECT OF OVERDOSE

Overdose of Rec Plast ZA-24 may result in the following:

- Slight Air entrainment
- Minimal compressive strength loss
- May increase bleed time
- Slight delay in initial setting

Dependent upon level of overdose, concrete mix details and conditions involved.

COMPATIBILITY

Rec Plast ZA-24 is easily miscible in dry-mix mortars/wet concrete and is compatible with a broad range of cement mixes and additives.

Consult Reckon Technical Dept for further info.

HEALTH & SAFETY

In case of contact with skin or eyes, rinse thoroughly with water. If irritation persists, seek medical attention. If swallowed, do not induce vomiting and seek medical attention.

QUALITY STATEMENT

All our products are manufactured to comply with our internal QA/QC program and quality management system to ensure consistency and quality.

DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their applications are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use, and that the Data Sheet version is the latest one. The company may modify it without prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's office in your location.

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RECKON CHEMICALS PRIVATE LIMITED
21 CCA, BLOCK B, KHAYABAN-E-AMIN, LAHORE
Tel: +92-42-35452620, +92-42-35230419
Web: www.reckonchemicals.com
Email: Info@reckonchemicals.com

