RECKON
CHEMICALS (PVT) LTD.

REC POLYPLAST P4110

SPECIAL SUPERPLASTICIZER FOR HIGH PERFORMANCE CONCRETE

DESCRIPTION

REC POLYPLAST P4110 is a superplasticizer based on modified synthetic carboxylated polymers specifically designed to produce ready-mix concrete with low water-to- binder ratio (w/b) and excellent workability. It can help the ready-mixed concrete industry, where more than normal slump retention and durability are required. The ability to work over a wide range of w/b, including low w/ b, and still obtain extended slump retention allows for the manufacturing of high-quality concrete.

PROPERTIES

REC POLYPLAST P4110 provides the following properties:

- Allows reduction in cement while maintaining desired strength.
- Accelerates strength development and resulting in higher frequency in use of forms.
- Permits reduction in amount of water normally required for a given workability.
- Enables development of high strength concrete other than by cement addition.
- Provides flow ability (greater than 200mm slump) of fresh concrete that does not segregate and sets in normal period of time while maintaining desired water-cement ratio.
- Provides concrete with self-consolidating properties.
- Enhances passing/filling ability of the fresh concrete.
- Enhances aesthetic for minimal repairs.
- High water reduction.
- High workability-ease of placing and compaction without segregation.
- Reduced risk of cracks.
- Good adhesion - ease of pumping.
- Good workability - excellent surface appearance.
- Minimal bleed water - excellent concrete quality.
- High elastic modulus - superior load bearing capacity.

SCOPE OF USE

REC POLYPLAST P4110 is recommended for all following areas:

- High rise concrete applications.
- Mass concrete.
- High strength concrete.
- Concrete mixes containing Silica Fume, GGBFS or PFA.
- Concrete with high resistance against aggressive media.
- Self Consolidating Concrete.
- High Durable Concrete.

TECHNICAL INFORMATION

Appearance	Liquid
Color	Light Yellow
Specific gravity at 25°C	1.06 ± 0.02
Chloride content	Nil (BS 5075)
Air Entrainment	Up to 2.0% depending on dosage rate and concrete proportioning.

APPLICABLE STANDARDS:

REC POLYPLAST P4110 complies with ASTM C 494 Type D & G, ASTM C1017 Type I & II, BS EN 934, & BS 5075.

INSTRUCTIONS FOR USE

REC POLYPLAST P4110 should be dispensed after all concrete constituents are charged in the central mixer preferably after approximately 60% of water addition.

DOSAGE

Trials should be conducted to determine the optimum dosage of **REC POLYPLAST P4110** for a particular mixture. A dosage of 0.4-2.6% per 100 kg of cementitious material is recommended. Further the required dosage for a specific site with controlled delay in setting and workability should be determined by in-situ trials. In addition, admixture demand varies with w/b of the concrete, cement type, pozzolanic materials and ambient temperature. Trials are to be conducted prior to use in order to determine required performance, including workability retention, setting, and strength development.

EFFECTS OF OVER DOSE

Severe over dose of **REC POLYPLAST P4110** will result in the following:

- Delay in initial setting time.
- Increase in air content
- Higher workability
- Impair Consistency and Cohesion.

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

COMPATIBILITY

REC POLYPLAST P4110 can be used in mixtures containing:

- Silica fume
- Fly Ash
- GGBFS
- Pozzolanic Binders

Consult technical department of Reckon Chemicals for advice.

DISPENSING

It is preferable that liquid admixtures for concrete should be introduced into a mixer by means of automatic dispensing equipment.

PACKAGING

REC POLYPLAST P4110 can be supplied in pails, drums and tanks.

STORAGE

Up to 2 years when stored in accordance with manufacturer's instructions.

HEALTH & SAFETY

In case of frost, the product recovers its properties after progressive thawing and homogenizing by agitation. 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 application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use. This Data Sheet version is the latest one. The company may modify it without any prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's head office located in Lahore.

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RECKON CHEMICALS PRIVATE LIMITED
Plot # 6 Km off Manga Road, Glamour Stop,
Opp. Sundar Industrial Estate, Lahore.
Tell: +92-42-35395224-225
Web: www.reckonchemicals.com
Email: Info@reckonchemicals.com

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