Product Data Sheet
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CHUPOL P125U

PCE FOR ULTRA HIGH STRENGTH CONCRETE

Description

CHUPOL P125U is polycarboxylate based superplasticizer for ultra-high strength concrete. CHUPOL P125U has outstanding dispersibility of binder and contributes to reducing the mixing time of concrete under conditions with an extremely low water-binder ratio. CHUPOL P125U significantly improves the workability of ultra-high strength concrete by reducing its viscosity.

Advantages

CHUPOL P125U provides the following properties:

- Enables easier manufacturing of ultra-high strength concrete
- Has extremely high dispersibility of cementitious materials
- Provides extended workability retention
- Enables the production of ultra-high strength concrete with excellent pumpability and workability
- Shortens the mixing time in the production of ultra-high strength concrete
- Exhibits excellent early strength development
- Contributes to improved productivity in the production of concrete
- Can be used in both Ready-mixed and Precast concrete applications

Dosage

A recommended dosage range of CHUPOL P125U is between 0.5 and 4% by weight of cementitious materials. The dosage rate will vary according to concrete materials, ambient conditions and the specific requirements of concrete. To ensure the desired performance is achieved, test the properties in concrete in advance and determine the optimal dosage accordingly.

The solid content of CHUPOL P125U is about 50%. It is recommended to dilute to a suitable concentration before actual use.

The air conctent may be adjusted as needed with the use of AE agents and/or defoamers.

Characteristic

- Appearance : Brownish liquid
- Solid content : Approx. 50 %
- Density (20℃) : Approx. 1.13 g/cm^3
- Chloride content : Nil

Storage

CHUPOL P125U should be stored in the range of 5 to 40 °C. Although freezing does not degrade the performance of CHUPOL P125U, precautions should be taken to protect CHUPOL P125U from freezing. If CHUPOL P125U is frozen, please thaw and mix thoroughly with mechanical agitation.

Performance Data

<Ready-mixed concrete>

C: Silica fume cement

W/C=0.14, W=160, C=1,143, S=384, G=807 (kg/m^3)

P125U#: CHUPOL P125U is diluted to S.C.30%. and Defoamer (CHUPOL AFK-2) is added at 0.3% by weight of CHUPOL P125U.

Admixture	Dosage (C×%)	Slump Flow (mm)			Air Content	Compressive Strength (MPa)		
		0min.	30min.	60min.		1 day	7 days	28 days
P125U#	1.25%	705	670	670	1.5%	28	104	136

<Precast concrete>

C: High early strength cement　Sg: GGBS　SF: Silica fume

W/B=0.15, W=150, C=600, Sg=280, SF=120, S=439, G=876 (kg/m^3)

P125U**: CHUPOL P125U is diluted to S.C.30%. and Defoamer (CHUPOL AFK-2) is added at 0.1% by weight of CHUPOL P125U.

Admixture	Dosage (B×%)	Slump Flow (mm)	Air Content	Compressive Strength (MPa)			
				1 day	3 days	7 days	28 days
P125U**	2.40%	690	2.1%	48	87	106	120

Steam Curing Condition: Pre-curing at 20℃ for 2 hours → Heating to 60℃ (20℃/hr) → Keep at 60℃ for 3 hours → Natural cooling

Shelf Life

Shelf life when CHUPOL P125U is stored in unopened packaging is 18 months. Please contact TAKEMOTO regarding suitability for use and dosage recommendations if the shelf life of CHUPOL P125U has been exceeded.

Packaging

CHUPOL P125U is supplied in 210kg drums or 1,000kg totes.

Related Documents

Safety Data Sheet

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