

Polycarboxylate Superplasticizer (PCE)

High-range water-reducing polycarboxylate superplasticizer for modern concrete admixture systems

GAC-PCE

Concrete Admixture

Superplasticizer

High Range Water Reducer

PRODUCT DESCRIPTION

Polycarboxylate Superplasticizer (PCE) is a dry powdered superplasticizer built on a long polyoxyethylene (PEO) chain with a terminal carboxylic group, synthesized from a modified polyether (SAE-IPEG). It is designed to give the greatest possible water reduction using modern polycarboxylate chemistry, and is free of calcium chloride, nitrates, nitrites, or other potentially corrosive materials.

TYPICAL PHYSICAL & CHEMICAL PROPERTIES

PARAMETER	TYPICAL VALUE
Appearance	White or yellowish powder
Solid Content	98 ± 0.5%
pH (23°C)	7 – 10
Na2SO4	3.0% max
Water Content	3.0% max
Loss on Ignition	86% min
Chloride Ion Content	0.1% max
Bulk Density	500 – 700 kg/m³
Water Reducing Rate	25% min
Fluidity of Cement Paste	≥ 220 × 0.95

Values represent typical production results and are provided for reference only; they do not constitute a binding product specification. Please refer to the Certificate of Analysis (COA) accompanying each shipment for batch-specific results.

APPLICATIONS

- High-range water reducer — reduces water requirement up to 40% and increases compressive strength at all ages
- Increases slump — typically 1 bag per yard of concrete increases slump by 6-8 inches
- Compatible with all standard concrete admixtures; free of calcium chloride, nitrates and nitrites
- Provides ultra-high early strength and improved slump characteristics with lower water-cement ratio
- Flexible dosing — relatively insensitive to time of addition versus PNS-based superplasticizers
- Reduces required AEA (air-entraining admixture) dosage compared to PNS-based systems

PACKAGING, HANDLING & STORAGE

Packaging	PE-lined plastic woven bag, 25 kg/bag
Storage	Store in a cool, dry, well-ventilated area, protected from moisture
Handling	Do not combine with PNS-based superplasticizers in the same concrete mixture — causes rapid loss of workability