

Product Overview

Our high-performance Water Reducer series comprises premium polycarboxylate ether (PCE) liquid. They are engineered to significantly reduce water and, optimize cement hydration and enhance both early and ultimate compressive strengths across diverse concrete applications.

Product Portfolio & Specifications:

Technical Parameters	WR	Test Method
Appearance	Colorless to Pale Yellow Liquid	Visual Assessment
Solid Content (%)	50.0 ± 1.0%	Moisture Analyzer
pH Value (@ 25°C)	3.0 – 6.0	Digital pH Potentiometer
Viscosity (cps) (@ 25°C)	Max 1100 cps	Brookfield Viscometer
Specific Gravity (@ 25°C)	1.00 ± 0.2 gm/cc	Hydrometer

Primary Applications

High-Performance Concrete (HPC): Delivers superior durability and low permeability.

Self-Consolidating / High-Flow Concrete: Ensures excellent flowability without segregation.

Precast Concrete: Accelerates strength development for faster mould turnaround times.

Ready-Mix Concrete (RMC): Provides extended slump retention for long-distance transit.

Eco-Green Concrete: Optimizes mix designs incorporating high volumes of SCMs (fly ash, slag).

Recommended Dosage

The standard dosage range is 0.4% to 1.4% by weight of total cementitious materials (cement + SCMs).

Optimum dosage depends heavily on specific mix designs, materials and project requirements.

Mandatory Requirement: Project-specific laboratory trial mixes must be conducted prior to full-scale batching to verify performance and compatibility.

Compatibility

Compatible With: All polycarboxylate ether (PCE) products and lignosulfonate-based plasticizers.

Incompatible With: Sulfonated Melamine Formaldehyde (SMF) and Sulfonated Naphthalene Formaldehyde (SNF) based admixtures. Cross-contamination will severely affect performance.

Supply & Packaging

Industrial Drums: 230 kg net weight plastic or lined steel drums.

Bulk Delivery: Dedicated road tanker loads or Intermediate Bulk Containers (IBCs / 1000L).
(Custom packaging solutions are available upon request)

Storage & Shelf Life

Temperature Range: Store between 5°C and 40°C (41°F to 104°F)

Environmental Protection: Keep in original sealed containers. Protect from direct sunlight, freezing conditions, and severe weather.

Handling Note: Direct sunlight or temperatures above 35°C may cause the HDPE drums to bulge slightly.

This is a normal physical reaction caused by water evaporation and does not affect product quality.

To resolve this, gently loosen the cap to release the pressure, then tighten it again. Move the HDPE drums to a cool, shaded area.

Colour Variation: Minor variations from light yellow to amber may occur over time or under normal storage conditions. This colour shift is purely cosmetic and does not impact product performance.

Shelf Life: 12 months from the date of manufacture when stored correctly in unopened, original packaging.

Health, Safety & Environmental (HSE)

Safety Profile

This product is classified as non-hazardous for transport and handling. However, standard industrial hygiene practices must be strictly enforced.

Personal Protective Equipment (PPE)

Eye Protection: Wear chemical splash goggles or safety glasses.

Skin Protection: Wear chemical-resistant gloves (nitrile or neoprene) and protective clothing.

First Aid & Hygiene

Skin Contact: Wash affected areas thoroughly with soap and water at the end of shifts or after direct contact.

Eye Contact: Flush immediately with copious amounts of clean water and seek medical attention if irritation persists.

Disclaimer:

The technical data and application guidelines herein are based on laboratory testing and current expertise. They reflect typical product properties and serve as a general guide only. Since site-specific environmental conditions, substrate preparation, material compounding and application methods are beyond our direct control, this information does not constitute a legal warranty or guarantee of performance, express or implied. Users must conduct independent, project-specific trial mixes to verify product suitability for their unique operational requirements prior to commercial use. The manufacturer assumes no liability for site-specific performance failures.