

## Product Overview

The n-ETHER Slump Retainer (SR) series represents a premium grade of high-performance Polycarboxylate Ether (PCE) liquid polymers engineered for advanced concrete technologies. This specialized formulation maximizes workability retention and stabilizes fluid consistency over extended intervals without causing structural retardation or compromising early-age hydration strength.

## Technical Specifications & Analytical Methods

The metrics below detail empirical parameters evaluated via standardized international testing protocols.

| Specification Parameter          | n-Ether SR                      | Testing Methodology      |
|----------------------------------|---------------------------------|--------------------------|
| Physical Appearance              | Colorless to Pale Yellow Liquid | Visual Assessment        |
| Active Solid Content (%)         | 50.0 ± 1.0%                     | Moisture Analyzer        |
| pH Value (@ 25°C)                | 3.0 – 6.0                       | Digital pH Potentiometer |
| Dynamic Viscosity (cps) (@ 25°C) | Max 1100 cps                    | Brookfield Viscometer    |
| Specific Gravity (@ 25°C)        | 1.00 ± 0.2 gm/cc                | Hydrometer               |

## Strategic & Salient Applications

**High-Performance Concrete (HPC):** Maintains fluid rheology in low water-to-cement (w/c) ratio designs.

**High-Flow Concrete:** Sustains self-consolidating property levels through congested reinforcing steel.

**Precast Concrete:** Optimizes open times and placement windows during casting cycles.

**Ready-Mix Concrete (RMC):** Prevents slump loss during extended haul times or high ambient temperatures.

**Sustainable Eco-Green Concrete:** Extends workability in mixes containing high fly ash or slag content.

## Application Protocols & Dosage Guidelines

### Recommended Dosage Range

The generic dose configuration varies from 0.4% to 1.4% by weight of total cementitious materials (cement + SCMs).

Engineers must adjust precise configuration variables based on project aggregate properties, cement classes, and ambient site conditions.

**Mandatory Rule:** Project-specific laboratory trial mixes must be executed with local materials to verify performance targets prior to full-scale batching.

## Admixture Compatibility

**Approved Matrix:** Fully compatible with all alternative Polycarboxylate Ether (PCE) variants and Lignosulfonate-based plasticizers.

**Strict Restrictions:** Do not blend with Sulfonated Melamine Formaldehyde (SMF) or Sulfonated Naphthalene Formaldehyde (SNF) plasticizers. Cross-contamination permanently impairs plasticization mechanisms.

## Logistics & Supply Logistics

**Industrial Drums:** 225 kg net capacity sealed heavy-duty containers.

**Bulk Deliveries:** Full industrial road tanker shipments.

Alternative or custom high-capacity containers are engineered and supplied upon request.

## Warehouse Storage & Shelf Life

**Temperature Range:** Safely maintain warehousing frameworks between 5°C and 40°C.

**Environmental Exposure:** Securely guard product units against direct sunlight, freezing temperatures, or localized weather elements.

**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.

**Aesthetic Variations:** Liquid properties may naturally range from light yellow to localized dark brown shades over time. This reaction is cosmetic and exerts zero influence on technical performance.

**Shelf Life Maturity:** Valid for 12 months from the noted production timestamp when stored in uncompromised original containers.

## Health, Safety & Environmental Profiles

### Personal Protective Equipment (PPE)

**Industrial Skin Guarding:** Wear chemical-impervious safety gloves at all times during handling and application.

**Ocular Protection:** Deploy clear safety goggles or face protective shields while dispensing.

## First Aid & Hygiene

**Decontamination:** Thoroughly wash face, skin and hands using soap and clean water at the end of working shifts or following incidental exposures.

**Hazardous Rating:** Formulated with non-hazardous base materials. Exercise standard industrial hygiene procedures during all operational phases.

## 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.