



Technical Data Sheet

ICC-E/O, P/O Copolymer Products

Trade Name: Copolymer PF40

Chemical Name: Block Copolymer PF40

Grade: Chemical

Low Foaming Surfactants

Block Copolymer EO-PO

I.C.C manufactures a wide range of low foaming surfactants designed to provide the appropriate functionality for all of our customers application needs. We help you to get your foam under control.

Alkyl based EO-PO block copolymers typically have lower surface tensions, CMC and greater dispersing power compared to the corresponding simple alkyl ethoxylates.

The propylene oxide block acts as a branched residue within the copolymers leading to performance advantages like better solubilization and emulsification properties.

Copolymer PF40 is resistant to water hardness salts and acids and alkalis in the concentrations normally used.

This cloudy, colorless solution has good wetting and dispersing action coupled with low foaming tendency.

APPLICATION

Copolymer PF40 is used as a low-foaming surfactant with very good dispersing action in detergents and cleaning agents. Typical application includes rising aids, detergents for dishwashers and bottle-rinsing machines and industrial cleaning formulations.

Copolymer PF40 is used as nonionic emulsifier for the emulsion polymerization of monomers like acrylates, styrene-acrylates and vinyl acetate. Nonionic and low foaming emulsifier in emulsion polymerization and as a dispersing agent for pigment pastes and preparations.

- Styrene/acrylate dispersions.
- Acrylate dispersion.
- Vinyl acetate dispersion.
- Low foaming, nonionic surfactant and defoamer for use in detergents and cleaning agent.
- Emulsifier, wetting and dispersing agent.
- Low-foaming, nonionic surfactant for the chemical industry

TEST	STANDARD TEST METHOD	RESULT
Appearance at 50°C	—	liquid
Color at 50 °C, APHA	ASTM D-1209	Max. 20
Average molecular weight, g/mol	Calculated	2897
pH (2.5% aqueous)	ASTM D-1172	5-7
Cloud point, °C (10% in BDG 25%)	ASTM D-2024	62-68
Density at 25°C, g/ml	ASTM D-1298	1.04±0.02
Hydroxyl value, mg KOH/g	ASTM D-4252	42-48
HLB, calculated	Calculated	8
Polyethylene glycol, percent	—	—
Viscosity at 25°C, cP	ASTM D-445	440±10

STORAGE AND HANDLING

Copolymer PF40 is dispatched in polyethylene or corrugated steel, galvanized or carbon steel drums. Copolymer PF40 is stable for 2 years when stored in the original sealed containers in a cool and dry place.

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

POTENTIAL HEALTH EFFECTS

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.