



Technical Data Sheet

ICC-E/O, P/O Copolymer Products

Trade Name: Copolymer PF20

Chemical Name: Block Copolymer PF20

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 PF20 can be used in combination with other nonionic, anionic and cationic surfactants. Copolymer PF20 is resistant to water hardness salts and to acids and alkalis in the concentrations normally used. Preliminary tests are required.

APPLICATION

Copolymer PF20 is used as a low-foaming surfactant and defoamer in detergents and cleaning agents. Copolymer PF20 has good wetting and dispersing action coupled with low foaming tendency. Within the Copolymer PF series, the products with a lower degree of ethoxylation have a better foam-suppressing effect than the products with a higher degree of ethoxylation. Typical applications include rinsing aids, detergents for dishwashers and bottle-rinsing machines and industrial cleaning formulations. Copolymer PF20 is also used as a low-foaming emulsifier in emulsion polymerization and as a dispersing agent for pigment pastes and preparations. Copolymer PF20 applications include reactions in the chemical industry.

Copolymer PF20 is used as a low foaming wetting agent in aqueous coatings. Copolymer PF20 is used as a low foaming emulsifier in emulsion polymerization to improve the emulsion stability and prevents foam during spray drying of dispersion powders.

TEST	STANDARD TEST METHOD	RESULT
Appearance at 50°C	—	liquid
Active content	—	100
Color at 50 °C, APHA	ASTM D-1209	Max. 20
Average molecular weight, g/mol	Calculated	2500
pH (2.5% aqueous)	ASTM D-1172	5-7
Cloud point, °C (5 gr in 45 ml BDG 25%)	ASTM D-2024	54-58
Density at 25°C, g/ml	ASTM D-1298	1.03±0.02
HLB, calculated	Calculated	4
Viscosity at 25°C, cP	ASTM D-445	380-450

STORAGE AND HANDLING

Copolymer PF20 is dispatched in polyethylene or corrugated steel, galvanized or carbon steel drums.

Copolymer PF20 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.