

# INOLUB™ P412F

## TECHNICAL DATA SHEET

### TECHNICAL INFORMATION

INOLUB™ P412F is a free-flowing fluoropolymer based powder designed specifically to be incorporated in very low concentrations as a film extrusion processing aid – primarily in LLDPE, mLLDPE and other polyolefins. It is targeted especially at today's modern polyolefin resins, enabling molecular architectures that can meet the ever-increasing demands of film performance but without compromising their extrusion capabilities.

### FEATURES AND BENEFITS

- Melt fracture (“sharkskin”) elimination for high clarity and gloss
- No effect on printability or mechanical strength
- Die build-up reduction
- Cost savings through improved output and energy reduction
- High-efficiency grade: typical effective concentration can be as low as 100ppm
- Lubricates die, enabling lower process pressures and temperatures

### PROPERTIES

Properties	Unit	Nominal Value
Appearance	-	White free flowing powder
Active component	%	97
Anti-caking agent	%	3
Bulk density	g/l	700

Note: These are typical properties and not to be used for specification purposes.

### PRACTICAL CONSIDERATIONS

Due to its low-end use concentration, INOLUB™ P412F is recommended to be added in the following ways:

- Polymer manufacture: Direct addition typically in a “one pack” additive blend during pelletization.
- Masterbatch: Content typically 0.5 - 5% INOLUB™ P412F. Conveniently dosed to achieve the desired level, either in polymer compounding/manufacture or directly in the film extrusion process. See INOLUB™ PPA “Masterbatch Compounding Guide”

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## FOOD CONTACT STATEMENT

**USFDA** – INOLUB™ P412F may be used as a processing aid at levels not exceeding 0.2% of the fluoropolymer (CASRN 9011-17-0), for all polymers intended for use in contact with all food types as described in Table 1 of 21 C.F.R. 176.170(c) under FDA's Conditions of Use A through H described in Table 2 of 21 C.F.R. 176.170(c).

**EU** – INOLUB™ P412F also complies with Regulation (EC) No 1935/2004 on materials and articles intended to come into contact with food and with Commission Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food.

It is the sole responsibility of the user to determine whether the use of INOLUB™ P412F in a particular application is suitable and complies with applicable laws and regulations.

## STORAGE

INOLUB™ P412F may be stored indefinitely, provided that the packaging remains unopened and that it has been stored in a clean and dry area at temperatures below 27°C (80°F).

## SAFETY AND HANDLING

Although INOLUB™ P412F presents no safety hazard under normal handling conditions, please refer to the Material Safety Data Sheet to avoid potential hazards prior to processing.

## PACKAGING

INOLUB™ P412F is available in 20 kg PE sacks within a corrugated box.

INOLUB™ is the brand name of Gujarat Fluorochemicals Limited (GFL) used for its brand of fluoropolymer additive. INOLUB™ can be used in applications duly approved by GFL. Customers who plan to use the word INOLUB™ as the trademark on or relation to their articles or other products in any style or combination or any manner whatsoever must contact GFL for prior permission for such use. No consumer/user of GFL product is permitted to claim that their products contain INOLUB™ without prior permission from GFL.

**WARNING:** Do not use any of INOLUB™ fluoropolymer additives in medical devices that are designed for permanent implantation in the human body. For other medical uses, prior permission of GFL may be sought.

## SALES AND TECHNICAL SUPPORT

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