

K R I T I L E N® masterbatches

FILLER MASTERBATCHES

TECHNICAL INFORMATION

KRITILEN FILLER masterbatches are concentrates of Calcium Carbonate (CaCO₃) or Talc in a polymer base. They offer a convenient way of incorporating CaCO₃ and Talc in thermoplastics, without contamination by dust. They have perfect dispersion and optimized flow properties, ensuring easy processing.

KRITILEN FILLER	BASE RESIN	FILLER TYPE	FILLER %
575	PE	CaCO ₃	75
580	PE	CaCO ₃	80
585	PE	CaCO ₃	85
PP975	PP-H	CaCO ₃	75
PP977	PP-H	CaCO ₃	75
PP980	PP-H	CaCO ₃	80
PS775	PS-GP	CaCO ₃	75
PS780	PS-GP	CaCO ₃	80
552	PE	Talc	50
561	PE	Talc	60
PP956	PP-H	Talc	50
PS7603	PS-GP	Talc	60

Other masterbatches with different type(s)/level(s) of fillers can be produced upon request.

CaCO₃ and talc grades used in KRITILEN FILLER masterbatches are of excellent quality. Their typical properties are as follows :

Property	CaCO ₃	Talc
Median size (D50), mic.	3,7	5,4
Top Cut (D98), mic.	9,5	20
Hardness (Mohs)	1,5	1
Oil Absorption (gr / 100 gr)	14	25

FOOD APPROVAL

All KRITILEN FILLER masterbatches are approved for food contact (unless otherwise specified).

10/07

The information and suggestions contained herein are the result of our experience, knowledge and research. They are believed to be reliable and are given in good faith. However no guarantee is provided, as the conditions under which our products are used are beyond our control.

APPLICATIONS

KRITILEN FILLER masterbatches are used in injection, blow-moulding, film, sheet and tapes applications. They offer the following advantages :

a) Injection & blow-moulding

- Lower raw materials cost, as they are usually more economic than polymer resins.
- Increased output due to faster mould cooling.
- Reduction of colour masterbatch requirement.
- Higher resistance to heat deflection, higher rigidity and stiffness.
- Improved dimensional stability, weldability and printability.

Addition rate of FILLER masterbatches in injection & blow-moulding applications can be up to 50 %, however, most usual levels are between 5-30 %.

b) Film, sheet, sacks, bags

- Lower raw materials cost, as they are usually more economic than polymer resins.
- Reduction of colour masterbatch requirement.
- Higher stiffness, paper-like effect.
- Improved weldability and printability.
- Improved anti-blocking properties
- Better bubble stability.

Addition rate of FILLER masterbatches in film applications is 2-20 %.

c) PE & PP tapes

- Antifibrillation (also known as anti splitting)
- Lower raw materials cost, as they are usually more economic than polymer resins.
- Reduction of colour masterbatch requirement.
- Higher stiffness.
- Improved weldability and printability.
- Improved anti-blocking properties.
- Improved weaving ability.
- Easier processing

Usual addition rate of FILLER masterbatches in tapes is 3-8 %.

The grades mostly recommended for this application are 575, 580, 585 and PP977. A PE based "anti-splitting" masterbatch adds a certain elasticity to the tape, while a PP based one is more compatible with the polymer. PP977 has been specially designed for this application and has a stricter dispersion specification than PP975 which is a general purpose filler masterbatch.

d) PS products

Filler PS775 and PS780 are used to add rigidity and reduce cost of PS products. Filler PS7603 contains talc and is used to improve mechanical properties of PS products while it can be also used as nucleating agent in foamed PS sheets.