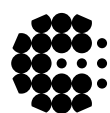




White
Masterbatches



Global Colors



Versatile
and functional

Whites formulated to ensure perfect dispersion and optimized flow properties.

Kritilen® White masterbatches are concentrates of Titanium Dioxide (TiO₂) in a polymer carrier. They offer a convenient way of incorporating TiO₂ in thermoplastics to provide opacity and white coloration. They have perfect dispersion and optimized flow properties, resulting to maximum hiding power and easy processing.

Titanium Dioxide used in all Kritilen® White masterbatches (unless otherwise specified) is of the RUTILE COATED type, offering high level of opacity, coloring strength and dispersibility along with excellent UV-stability. Other TiO₂ crystal structure can also be used upon request.

Kritilen® White masterbatches may have either a milky, a bluish or an extra bluish white undertone. Certain types contain a fine Calcium Carbonate filler, which provides economy as well as technical benefits in many applications.

All Kritilen® White masterbatches (unless otherwise specified) are approved for food contact.

Injection & blow-molding

WHITE 120, 121, 125, 126, 135, 136 & PP920 are mainly used for these applications. They contain an amount of Calcium Carbonate, which offers dimensional stability, rigidity and stiffness to the final products, as well as faster mould cooling and increased output.

WHITE 135, 136, 140 & 1410 are also widely used for injection & blow-moulding.

Due to the relatively low level of pigment that thick articles require to obtain the necessary opacity, it is generally advisable to use masterbatches with low to medium pigment content, so that the addition level of the masterbatch is not below 1 %, to ensure correct mixing and homogenization with the polymer.

KRITILEN® WHITE	Carrier Resin	TiO2 %	White Pigment types	Undertone	Additives	Filler	Injection moulding	Blow-moulding	Films / Sheets	Thin films	PP tapes
120	PE	20	TiO2	B		◆	●	●	○		●
121	PE	20	TiO2	M		◆	●	●	○		●
125	PE	25	TiO2	B		◆	●	●	○		●
126	PE	25	TiO2	M		◆	●	●	○		●
135	PE	35	TiO2	B		◆	●	●	○		○
136	PE	35	TiO2	M		◆	●	●	○		○
140	PE	40	TiO2	B		◆	●	●	●		○
1410	PE	40	TiO2	M		◆	●	●	●		○
1353	PE	40	TiO2	M	AT	◆	●	●	●	○	○
150	PE	50	TiO2	B		◆	●	●	●	○	○
1530	PE	50	TiO2	M		◆	●	●	●	○	○
160	PE	60	TiO2	B		◆	○	○	●	●	○
161	PE	60	TiO2	M			○	○	●	●	○
162E	PE	60	TiO2	M		◆	○	○	●	●	○
163	PE	60	TiO2	B			○	○	●	●	○
1606	PE	60	TiO2	B	slip	◆			●	●	○
1609	PE	60	TiO2	B	slip	◆			●	●	○
1689	PE	60	TiO2	M	UV				●	●	○
1619	PE	60	TiO2 durable	M			○	○	●	●	○
1681	PE	70	TiO2	B	PPA			○	●	●	○
1765	PE	65	TiO2	B		◆		○	●	●	○
1701	PE	70	TiO2	B		◆	○	○	●	●	○
1703	PE	70	TiO2	M		◆	○	○	●	●	○
1705	PE	70	TiO2 durable	M			○	○	●	●	○
1742	PE	70	TiO2	M	UV				●	●	○
170	PE	70	TiO2	B			○	○	●	●	○
172	PE	70	TiO2	M			○	○	●	●	○
173	PE	70	TiO2	B*			○	○	●	●	○
175	PE	75	TiO2	M			○	○	●	●	○
1707	PE	70	TiO2	M			○	○	●	●	○
1725	PE	70	TiO2	M					●	●	○
180	PE	80	TiO2	M			○	○	●	●	

Polyethylene Range

- AT Anti-static
- PPA Polymer processing aid
- B Bluish
- M Milky
- * Extra bluish
- ◆ Yes
- Recommended
- Can be used

Modified versions of the above products can be produced upon request, e.g. with another base resin, white pigments type/content or containing different types/levels of additives.



For applications requiring anti-static properties to facilitate production and/or end use purposes, there are 2 specially designed grades, WHITE 1353 & PP9351 with different levels of anti-static additives. Typical applications are PP thermoformed items for food packaging and buckets for food products & paints.

Films

For relatively thick LDPE films (shopping bags, silage films, heavy duty bags etc. with a thickness of 40-200 mic.) the most suitable products are those containing 40-60 % TiO2, i.e. WHITE 140, 1410, 150, 1530, 160, 161, 162 & 163. In case the polymer used does not contain slip, it is possible to add slip with WHITE 1606 (most suitable for LDPE) or 1609 (most suitable for HDPE), which contain different types/levels of slip additives.

For thin LDPE, LLDPE & HDPE film production, masterbatches with high content of TiO2 and the best possible dispersion, such as WHITE 160, 161, 162E, 163, 1765, 1701, 1703, 170, 172, 173, 1707, 175 and 180 are preferable. For high-output and/or high temperature extrusion, especially of HDPE, the following special grades offer additional advantages: i) WHITE 1681 contain PPA (polymer processing aid), which facilitates extrusion, reduces die build-up, melt-fracture, and surface defects ii) WHITE 1725 contains a special type of Titanium Dioxide with very low volatiles content and prevents die build-up, burned particles and lacing.

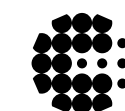
For stretch silage film, WHITE 1689 and WHITE 1742 with 60% and 70% of specially selected TiO2 respectively, combined with a proven UV-stabilizer, are the best choice for this application (1 year lifetime at a thickness of 20-25 mic.).

For outdoor applications requiring increased weather resistance, WHITE 1619 and WHITE 1705 which contain a durable TiO2, are recommended.

For BOPP films WHITE PP961 and WHITE PP9795 are recommended. The TiO2 excellent dispersion into the polypropylene carrier makes them an optimum choice for BOPP films. They contain 60% and 70% of TiO2, respectively. They are proposed for use at 10% - 15% in middle film layer.

PP & PS thermoforming & injection molding

WHITE PS & PP masterbatches are recommended for PS & PP products, where they ensure better dispersion and homogenization than PE based masterbatches and do not affect the mechanical properties of the end product. Such products are, WHITE PP952, PP9505, PP9799G, PS730, PS7306, PS734, PS741, PS7452, PS750, PS751 & PS755.



Global Colors

KRITILEN® WHITE	Carrier Resin	White Pigments %	White Pigment types	Undertone	Additives	Filler	Injection moulding	Blow-moulding	Sheets	PP tapes	PP fibers
PP920	PPH	20	TiO2	M		◆	●	●		●	
PP952	PPH	50	TiO2	B		◆	●	●	●	○	
PP9505	PPH	50	TiO2	B*		◆	●	●	●		
PP953	PPH	50	TiO2	M			●	●	●	○	
PP9351	PPH	35	TiO2	M	AT	◆	●	●	○	○	
PP958	PPH	50	TiO2	B			●	●	●		
PPF979	PPH	70	TiO2	M							●
PPF979G	PPH	70	TiO2	M					●	○	
PP961	PPH	60	TiO2	M					●		
PP9795	PPH	70	TiO2	M					●		
PS720	PSGP	20	TiO2	B		◆	●		○		
PS7306	PSGP	25	TiO2	B		◆	●		●		
PS730	PSGP	30	TiO2	B		◆	●		●		
PS734	PSGP	30	TiO2	M		◆	●		●		
PS741	PSGP	40	TiO2	B		◆	●		●		
PS7452	PSGP	45	TiO2	B		◆	○		●		
PS750	PSGP	50	TiO2	B			○		●		
PS751	PSGP	50	TiO2	B		◆	○		●		
PS755	PSGP	50	TiO2	M			○		●		
PS760	PSGP	60	TiO2	M					●		
PV89013	p-PVC		TiO2			◆					
PT634	PET	40	TiO2	M			●	●	●		
PT91638	PET	70	TiO2	M			●	●	●		

PP-PS-PVC-PET Product Range



PP tapes

Use of WHITE 120, 121, 125 or 126, which contain a relatively high amount of calcium carbonate, is both economic and technically sound, as they contribute to anti-fibrillation properties.

PP fibers

WHITE PPF979 is specially designed for BCF, CF and stapled fibers as well as for spun-bonded products. Due to its excellent dispersion and specially adjusted flow properties, it allows for smooth and long production runs.

PVC cables

For PVC cables and other plasticized PVC products, WHITE PV89013 is designed according to RAL 9016 which is the standard in the cables industry.

PET sheets and bottles

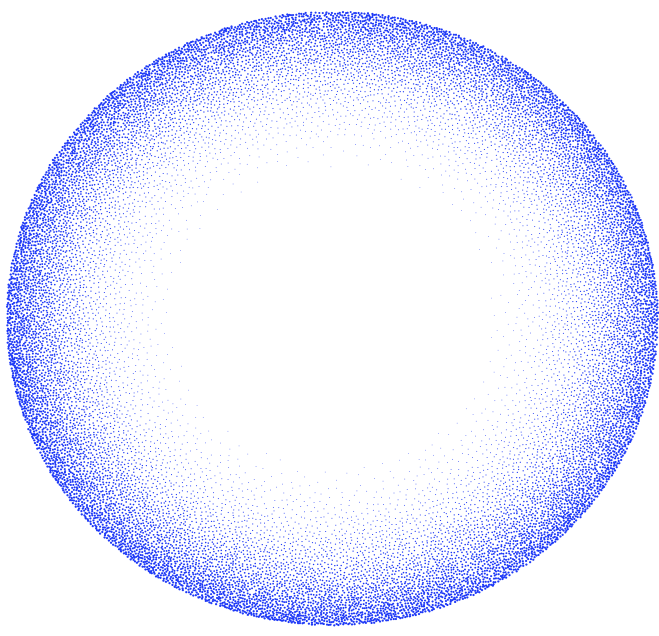
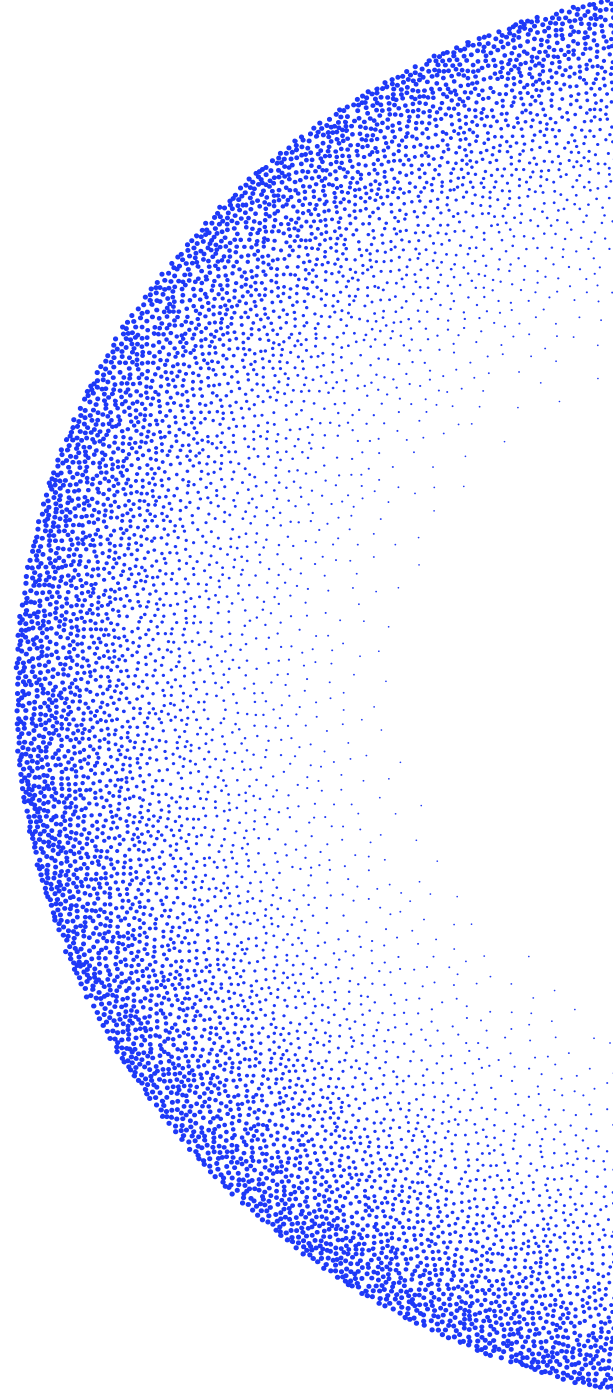
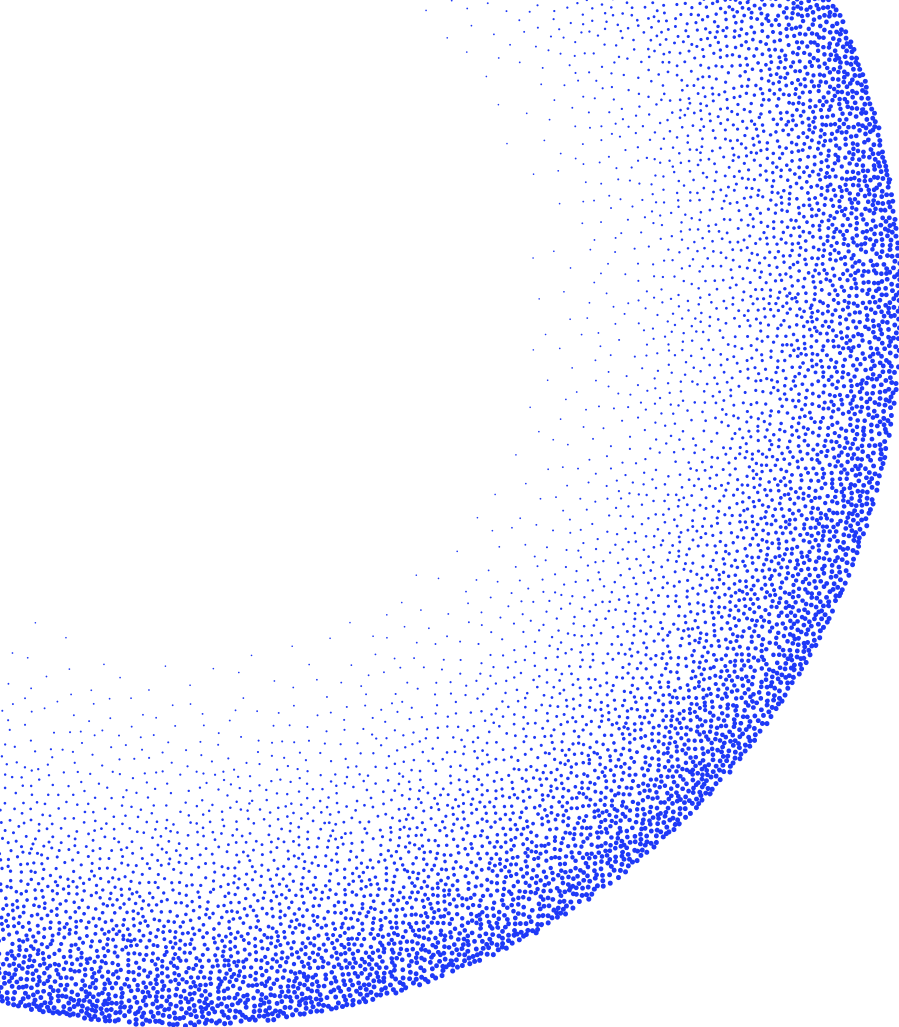
For PET extrusion and blow molding applications, WHITE PET634 and PT91638 are recommended.

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 warranty is provided, as the conditions under which our products are used are beyond our control.



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