








Product Name			CONTROL PLAN													ต้นฉบับ	
Black Masterbatch																	
Process Number	Process Flow	Process Name/ Operation Description	Machine,Device, Jig,Tools For Manufacturing	Characteristics			Special Char. Class	Methods						Responsibility	Reaction plan		
	Main			No.	Product	Process		Product/Process Specification/Tolerance	Evaluation Measurement Technique	Sample		Control Method					
1		Incoming		01	Visual Control			<ul style="list-style-type: none">• Pigment• Filler• Additive	<ul style="list-style-type: none">• Code No.• Lot. R/M• Quantity	1	Bag	WH-P-001 WH-F-001 ใบส่งของ Invoice PO COA		<div>△</div> <div>▲</div>	Return Supplier / Record Incoming Material (WH-F-002)		
				02	Weighting			± 1%	<ul style="list-style-type: none">• Scales	25 kg.		WH-F-001		<div>△</div> <div>▲</div>			
2		RM/QC		01	Mixing RM			<ul style="list-style-type: none">• Pigment 0.1 g.• TiO2 0.9 g.• HPPE 100 g.• Zinestearate 0.065 g.	<ul style="list-style-type: none">• Two roll mill	1	Chip		LA-W-004 LA-S-009 LA-W-032 LA-P-003 LA-S-003 CIE Lab WH-F-002 Sticker	<div>○</div> <div>●</div>	Return Warehouse R/M		
				02	Measure ΔE			Delta E 0.5-3.00	<ul style="list-style-type: none">• Spectrophotometer								
3		RM/PREPARATION		01	Weighting		SC	<ul style="list-style-type: none">• ± 0.01 kg./60 kg.• ± 0.5 g ./7.5 kg	<ul style="list-style-type: none">• Scales	1	Time	WH-W-003 PL-F-002 PL-F-003		<div>△</div> <div>▲</div>			
4		Mixing	High Speed Mixer	01	Mix			Amp Meter 20-70 Amp.	<ul style="list-style-type: none">• High Speed Mixer	1	Time	PD-P-001 PD-P-002 PD-W-038 PD-W-039 PD-F-009 PD-F-024 PD-F-026 PD-F-033 PD-F-035 PD-F-041 PD-S-002 PL-F-002		<div>□</div> <div>■</div>	Rerun Process		

Responsibility symbol ; △ = Warehouse Operator
▲ = Warehouse Manager

○ = QC & Lap Operator
● = QC & Lap Manager

□ = Production Operator
■ = Production Manager

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Process Number	Process Flow	Process Name/ Operation Description	Machine,Device, Jig,Tools For Manufacturing	Characteristics			Special Char. Class	Methods						Responsibility	Reaction plan	
	Main			No.	Product	Process		Product/Process Specification/Tolerance	Evaluation Measurement Technique	Sample		Control Method				
										Size	Freq.	Manuf.	Q.C			
5		Feeder	Buss Kneader 1 Buss Kneader 2	01	Gravimetric Feeder		SC	• Max Load 80%	Buss Kneader 1 Buss Kneader 2	1	Time	PD-P-001 PD-P-002 PD-W-010 PD-W-033 PD-F-002 PD-F-004 PD-F-011 PD-F-012 PD-F-016 PD-F-018 PD-F-023 PD-F-024 PD-F-027 PD-S-002 PL-F-002	<div><input type="checkbox"/> <input checked="" type="checkbox"/></div>	Rerun Process		
6		Extrusion	Buss Kneader 1 Buss Kneader 2	01	Extrude			• 500 - 1,200 kg./ Hrs • Temperature Max 300 °C	Buss Kneader 1 Buss Kneader 2	1	Time	PD-P-001 PD-P-002 PD-W-010 PD-W-033 PD-F-002 PD-F-004 PD-F-011 PD-F-012 PD-F-016 PD-F-018 PD-F-023 PD-F-024 PD-F-027 PD-S-002 PL-F-002	<div><input type="checkbox"/> <input checked="" type="checkbox"/></div>	Rerun Process		
7		Cooling & Pelletizing	Underwater Pelletizer	01	Visual Control			N-A	• Speed 500-3600 rpm	N/A	N/A	PD-W-010 PD-W-033	<div><input type="checkbox"/> <input checked="" type="checkbox"/></div>	Rerun Process		

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Black Masterbatch															
Process Number	Process Flow	Process Name/ Operation Description	Machine,Device, Jig,Tools For Manufacturing	Characteristics			Special Char. Class	Methods						Responsibility	Reaction plan
	Main			No.	Product	Process		Product/Process Specification/Tolerance	Evaluation Measurement Technique	Sample		Control Method			
8		Final Test		01	Delta E (Color Shade)		SC	0.5-3.00	• Spectrophotometer	1	Chip		LA-P-003 LA-W-040 LA-W-041 CIE Lab LA-W-020 LA-W-031 LA-F-006 LA-F-003 LA-F-005 LA-W-019 Sticker LA-W-006 LA-W-005 LA-W-026 LA-W-009 LA-W-039 LA-S-011 ISO18553	○ ●	Adjust Rerun LA-F-006 (QC-Report) Add Rerun By Bland
				02	Dispersion			Visual	• Zoom Stero Micoscope						
				03	Homogeneity Contamination			Visual	• Floding Magnifier						
				04	Moisture			≤ 0.2 %	• Muistrue						
				05	Bulk Density test			Customer STD Spec	• Bulk Density						
				06	Density test			Customer STD Spec	• Density						
				07	Ash Conten			Customer STD Spec	• Furnance						
		08	Additive Conten			Customer STD Spec	• HPLC				(AS DINEN-13900-6)				
		09	Filter Value			Customer STD (< 2 bar)	• Filter test								
		10	Dispersion Index			Visual	• Film Blowing								
		11	OIT			Customer STD Spec	• Film Blowing								
9		Packing		01	Weighting			10 g.	• Scales • Visual	1	Bag	PD-S-002 PD-F-012 PD-F-018 PD-F-023 Sticker		□ ■	Rework

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