








Product Name			CONTROL PLAN													ต้นฉบับ	
Black Filler 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			• Pigment • Filler • Additive	• Code No. • Lot. R/M • Quantity	1	Bag	WH-P-001 WH-F-001 ใบส่งของ Invoice PO COA		△ ▲	Return Supplier / Record Incoming Material (WH-F-002)		
				02	Weighting			± 1%	• Scales	25 kg.		WH-F-001		△ ▲			
2		RM/QC		01	Mixing RM			• Pigment 0.1 g. • TiO2 0.9 g. • HPPE 100 g. • Zinestearate 0.065 g.	• 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	○ ●	Return Warehouse R/M		
				02	Measure ΔE			Delta E 0.5-3.00	• Spectrophotometer								
3		RM/PREPARATION		01	Weighting		SC	• ± 0.01 kg./60 kg. • ± 0.5 g /7.5 kg	• Scales	1	Time	WH-W-003 PL-F-002 PL-F-003		△ ▲			
4		Mixing	High Speed Mixer	01	Mix			Batch Size 5 - 250 kg. Amp Meter 0 - 80 Amp. Speed 450 - 1750 rpm.	• 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		□ ■	Rerun Process		




Responsibility symbol ; △ = Warehouse Operator
 ▲ = Warehouse Manager







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

□ = Production Operator
 ■ = Production Manager



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										Size	Freq.	Manuf.	Q.C		
5		Feeder	FARREL	01	Gravimetric Feeder		SC	• Max Load 80%	• Single Screw Extruder • Twin Screw Extruder	1	Time	PD-P-001 PD-P-002 PD-W-065 PD-W-031 PD-F-051 PD-F-011 PD-F-016 PD-F-024 PD-S-002 PL-F-002		<div><input type="checkbox"/><input checked="" type="checkbox"/></div>	Rerun Process
6		Mixing	FARREL	01	Kneader		SC	• Max 750 rpm.	• Twin Screw	1	Time	PD-P-001 PD-P-002 PD-W-065 PD-W-031 PD-F-051 PL-F-002		<div><input type="checkbox"/><input type="checkbox"/></div>	Rerun Process
7		Extrusion	FARREL	01	Extrude			• 1,300-2,700 kg./ Hrs. • Temperature Min 100 °C • Temperature Max 260 °C	• Single Screw Extruder	1	Time	PD-P-001 PD-P-002 PD-W-065 PD-W-031 PD-F-051 PD-F-011 PD-F-016 PD-F-024 PD-S-002 PL-F-002		<div><input type="checkbox"/><input checked="" type="checkbox"/></div>	Rerun Process
8		Cooling & Pelletizing	Underwater Pelletizer	01	Visual Control			N-A	• Speed 250-4,500 rpm.	N/A	N/A	PD-W-065		<div><input type="checkbox"/><input checked="" type="checkbox"/></div>	Rerun Process

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9		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 (AS DINEN-13900-6)	  AdJUST Rerun LA-F-006 (QC-Report) Add Rerun By Bland	
02	Dispersion		Visual	• Microscope											
03	Homogeneity Contamination		Visual	• Magnifier											
04	Moisture		≤ 0.2 %	• KARL FISCHER • MOISTURE BALANCE											
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											
09	Filter Value		Customer STD (< 2 bar)	• Filter test											
10	Dispersion Index			Visual	• Film Blowing										
				11	OIT			Customer STD Spec	• Film Blowing						
10		Packing		01	Weighting			10 g.	• Scales • Visual	1	Bag	PD-W-028 PD-W-055 PD-F-012 PD-F-018 PD-F-021 PD-F-023 PD-F-030 PD-S-002 PL-F-002 Sticker	 	Rework	

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