

























Product Name		CONTROL PLAN										Prepared by	Checked by	Approved by	
Black Masterbatch												DO NOT COPY			
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		
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			Return Supplier / Record Incoming Material (WH-F-002)
				02	Weighting			± 1%	<ul style="list-style-type: none"> Scales 	25 kg.		WH-F-001			
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		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			
4		Mixing	High Speed Mixer	01	Mix			Amp Meter 20-40 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			Rerun Process



Responsibility symbol ;  = Warehouse Operator
 = Warehouse Manager




 = QC & Lap Operator
 = QC & Lap Manager

 = Production Operator
 = Production Manager

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	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		<input type="checkbox"/> <input checked="" type="checkbox"/>	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		<input type="checkbox"/> <input checked="" type="checkbox"/>	Rerun Process
7		Cooling & Pelletizing	Underwater Pelletizer	01	Visual Control			N-A	• Speed 500-3600 rp	N/A	N/A	PD-W-010 PD-W-033		<input type="checkbox"/> <input checked="" type="checkbox"/>	Rerun Process

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	Main			No.	Product	Process		Product/Process Specification/Tolerance	Evaluation Measurement Technique	Sample		Control Method			
										Size	Freq.	Manuf.	Q.C		
8		Final Test		01	Delta E (Color Shade)		SC	0.5-3.00	• Spectrophotometer	1	Chip		LA-P-003	<input type="radio"/> Adjust Rerun <input checked="" type="radio"/> Add Rerun By Bland	Adjust Rerun LA-F-006 Report) Add Rerun By Bland
				02	Dispersion			Visual	• Zoom Stero Microscope				LA-W-040		
				03	Homogeneity Contamination			Visual	• Floding Magnifier				CIE Lab		
				04	Moisture			≤ 0.2 %	• Muisttrue				LA-W-020		
				05	Bulk Density test			Customer STD Spec	• Bulk Density				LA-W-031		
				06	Density test			Customer STD Spec	• Density				LA-F-006		
				07	Ash Conten			Customer STD Spec	• Furnance				LA-F-003		
				08	Additive Conten		Customer STD Spec	• HPLC	LA-W-005	(AS DINEN-13900-6)					
				09	Filter Value		Customer STD (< 2 bar)	• Filter test	LA-W-026						
				10	Dispersion Index		Visual	• Film Blowing	LA-W-009						
				11	OIT		Customer STD Spec	• Film Blowing	LA-W-039						
9		Packing		01	Weighting			10 g.	• Scales • Visual	1	Bag	PD-S-002 PD-F-012 PD-F-018 PD-F-023 Sticker	<input type="checkbox"/> <input checked="" type="checkbox"/>	Rework	

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