
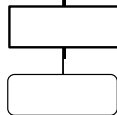


Product Name		PROCESS FLOW CHART ต้นฉบับ			
Black Filler Masterbatch					
Step	Graphical Symbol	Process Name	Equipment	Key Product & Key Control Characteristics	Corrective Action
1		Start Raw Material Received	Scales	• Code No., Quantity • Weighting ± 1 % / Container	Return Supplier / Record Incoming Material (WH-F-002)
2		Incoming Inspection	Two Roll Mill Spectrophotometer	• Mixing RM Temperature 150-300 °C • Delta E (Color Shade) 0.5-3.00	Report To Warehouse
3		Material Preparation	Scales	• Weighting ± 0.5 g./ 7.5 kg. • Weighting ± 0.01 kg./ 60 kg.	
4		Mixing	High Speed Mixer	• Max 100 kg./ Batch • Amp Meter 20-70 Amp.	
5		Feeder	Gravimetric Feeder	• Max Load 80%	
6		Mixing	Kneader	• Max 750 rpm.	
7		Extrusion	Single Screw Extruder	• 1,300-2,700 kg./ Hrs. • Temperature 100-260 °C	Rerun Process
8		Cooling & Pelletizing	Underwater Pelletizer	• Speed 250 - 4,500 rpm.	Rerun Process

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9		Final Inspection	Spectrophotometer Microscope Magnifier Karl Fischer Moisture Balance } Bulk Density Tester Density Tester Furnance High Performance Liquid Chromatography (HPLC) } Filter Test Film Blowing Differential Scanning Calorimeter (DSC) }	• Delta E (Color Shade)  • Dispersion • Homogeneity • Contamination  • Moisture  • Bulk Density • Density • Ash Content  • Additive Content  • Filter Value • Dispersion Index  • Oxidation Induction Time (O.I.T)	Adjust/ Rerun/ Record QC-Report  (LA-F-006)
10		Packing  End	Scales	• Weighting/ Identify Tag & Lable	Standard Packaging Operation