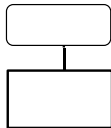
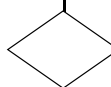
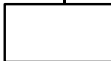
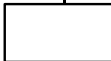
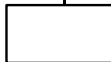
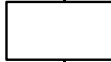
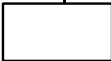
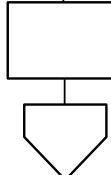

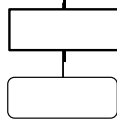


| Product Name | | PROCESS FLOW CHART | | | | ต้นฉบับ |
|--------------------------|---|------------------------------------|--|--|--|---------|
| Black Filler Masterbatch | | | | | | |
| Step | Graphical Symbol | Process Name | Equipment | Key Product & Key Control Characteristics | Corrective Action | |
| 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 250 kg./ Batch • Amp Meter 0-80 Amp. • Speed 450 - 1750 rpm.p. | | |
| 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 | |

| Product Name | | PROCESS FLOW CHART | | | |
|--------------------------|---|--------------------|--|---|---|
| Black Filler Masterbatch | | | | | |
| Step | Graphical Symbol | Process Name | Equipment | Key Product & Key Control Characteristics | Corrective Action |
| 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 |