

# COMPOSTABLE RESIN PROCESSING GUIDE

## Blown Film extrusion Instruction-ADFLEX-FT-1 / ADFLEX-FT-3

.....

ADFLEX-FT-1 / ADFLEX-FT-3 resin can be processed on standard LDPE **or LLDPE blown film equipment**. Specific instructions for film blowing of ADFLEX-FT-1/ ADFLEX-FT-3 resins are shown as follows:

Processing of ADFLEX-FT-1 / ADFLEX-FT-3 resins starts with the cleaning **procedure** of the production line. LDPE with MFR 4~5 g/10 min (190 °C, 2.16Kg) can be used to purge, with its minimum melting temperature ADFLEXFT1 resin can be used as the last cleaning step after processing temperature adjusted to correct settings.

Please be cautious of the temperature used during extrusion and film blowing. The grooved **feed section of** the extruder should be kept **as cold as possible**. The **temperature** of the first extruder zone will be reduced to about 110 °C. All other zone temperatures along the extruder line including the die should be set to achieve a melt **temperature in the range of 140°C to 160°C**. But looking at the melt and quality of film, temperature should be adjusted according to the quality requirement of the film.

Above recommendation are for grooved fed extruder but for simple extruder die, the starting temperature can be even lower. Exact temperature setting varies from machine to machine.

The screw **rotation speed should** be slow **at beginning** and then speed up to match the haulage speed. As a precaution for a breakdown of the bubble we suggest a high **film thickness during start-up**. Because of the high elasticity of the bubble, it is suggested to position the sizing basket at a low height above the die – depending on film thickness and output rate.

The inside and outside aeration should be gradually changed from weak to strong. The preferred **blow up ratio is 3:1 to 4:1**. The heights from die orifice to the nip roll should be higher, to ensure full cooling and prevent film blocking.

In general, ADFLEX-FT-1 / ADFLEX-FT-3 film can be printed **and welded on standard equipment**. Both alcohol and water based inks can be used after testing. The drying temperatures should be kept below LDPE conditions. As drying conditions depend very much on the machine design they need to be determined during the trial.

The ADFLEX-FT-1 / ADFLEX-FT-3 film edge trim and bag handle "punch outs" can be reprocessed and recycled as long as it is kept segregated (i.e. not mixed with polyethylene) and kept dry. The regrind **pellets can be fed** into the main film process at a ratio **of 5:95** regrind / virgin resins.

---

The information provided here is just general guideline, based on our knowledge and experience, customer are advised to take care as per their machine condition, atmosphere and specific requirements of products. Advance Bio Material will be no way responsible for actual outcome of result.

**Advance Bio Material Co. Pvt. Ltd.**