Processing guide for Ad flex FT 6 for thermoforming

The information that is given in this processing guide only serves as a starting point. Optimization of the process is recommended to find the optimal process conditions for the formulation that is used. To validate the product against customer requirements, testing of products etc.

STORAGE CONDITIONS

It is recommended to store ADFLEX FT 6 polymers and compounds in its closed, original moisture-barrier packaging at temperatures below 50°C. Storage in direct sunlight should be avoided.

DRYING:

Resins are supplied in sealed aluminium-lined barrier packaging with a maximum moisture content of 400 ppm. It is recommended to reduce the moisture content before melt processing to a level less than 250 ppm and preferably to 100 ppm. Moisture causes hydrolysis of the during melt processing, resulting in reduced mechanical performance in the final part.

The preferred method to dry Material is by using a desiccant hot air dryer system. Another option is to use a vacuum drying oven. In case additives are used, it is also necessary the check the moisture content of the additives and dry them if necessary.

The dried Material should be processed as soon as possible after drying .The packaging should be kept sealed before usage and any unused material should be resealed Immediately. It is recommended to have a closed system from the dryer into the feeder, a dryer installed on top of the feeder.

START-UP AND SHUTDOWN

Before introducing Material, the extrusion equipment needs to be well cleaned and purged to prevent cross contamination. Also, make sure that the feeding and blending equipment in the material preparation steps (before the materials and additives enter the extruder) is extensively cleaned and that they are free of dust and contamination. The

purging procedures below are recommended for removing other polymers when processing ADFLEX FT 6.

1. Check if other polymers from previous runs are present in the barrel of the machine. To prevent starting up the machine with no molten material,

2. Purge the system with a polyolefin with 3g/10 min to 6 g/10 min MFI, or a purging compound with higher MFI (e.g. ASAclean, Dyna-Purge, etc.) followed by purging with the ADFLEX FT 6

3. Change the temperature of the barrel to the required temperature for this material as recommended below.

4. Check that the processed material is free of contamination before starting production.

5. At completion of the run, it is recommended to purge the system again by using a purging compound to clean the machine from remaining material for 5 times the average residence time.

After completion of the run, ADFLEX FT 6 must be removed from the whole system. It can degrade over time and causing corrosion of the equipment

Typical extruder conditions for extrusion are shown in the table below.

Feed zone ºC 20-40

Melt zone ºC 170-190

Mixing & conveying ºC 190-210

Die head temperature ºC 190-210

Heat extruded sheets to 90°C before trimming. The ideal temperature for the heating platen is very narrow, and a couple of degrees can make a difference. If the sheet is too hot, it will stick onto the platen, and if it's too cold, it won't form.