

Extrusion Guidelines for MEGOLON® LSHF Thermoplastic Compounds

Screws

Most low smoke halogen-free (LSHF) materials have a melt viscosity higher than PE/PVC. Such compounds require more power during processing, which leads to a rapid increase in melt temperature as the screw speed increases. MEGOLON® compounds have been processed on a variety of screw designs, but for optimum output the use of a low compression, low shear screw is recommended. A compression ratio of 1.2: 1 is ideal. Advice on the use of screws other than those of the lower compression variety is available from our technical department.

Tooling

MEGOLON® compounds are suitable for both tubing and pressure techniques. When a tubing technique is employed, the draw down ratio should be kept low in order to avoid stresses within the sheath. A draw down ratio of 1.5:1 is recommended.

The head and tools should be designed to give a smooth, streamlined flow. Heads with large volume flow channels have proved to be quite suitable and tools without a land have been shown to be effective.

Temperature profiles

The following is a typical temperature profile to be used as a guide for processing MEGOLON® compounds. This is a starting point, and adjustments and fine-tuning may be necessary.

Zone 1	Zone 2	Zone 3	Zone 4	Head	Die
135°C	140°C	145°C	150°C	160°C	165°C
Preferred melt temperature range: 165°C to 175°C					
Maximum melt temperature: 180°C to 185°C					

Drying

Pre-drying of MEGOLON® is not normally necessary providing the compound has been stored in a cool, dry area. However, if the melt temperature is expected to rise above 170°C, or if the material has been either in a humid environment, or if the material has been stored for an extended period, it may prove prudent to dry the material before extrusion. A temperature of 60-70°C for several hours in a desiccant hopper drier would be adequate.

More comprehensive processing information along with advice on specific extruders can be obtained by contacting us.

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