

Extrusion Guidelines for MEGOLON™ Thermoplastic Compounds

Screws

Most zero halogen low smoke 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 the technical department of AlphaGary Ltd.

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. We would suggest 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 from AlphaGary.

Although AlphaGary believes these data are accurate as of the date hereof, they are provided for informational purposes only. It cannot be assumed that these data cover all uses, applications or conditions in connection with this material. Accordingly, AlphaGary makes no warranty, expressed or implied, that the product conforms to these data. Each customer or user of AlphaGary's materials is solely responsible for determining the suitability of the material(s) selected for the intended application. Each customer or user must conduct its own studies and gain all necessary approvals and certifications as required for the intended finished product.