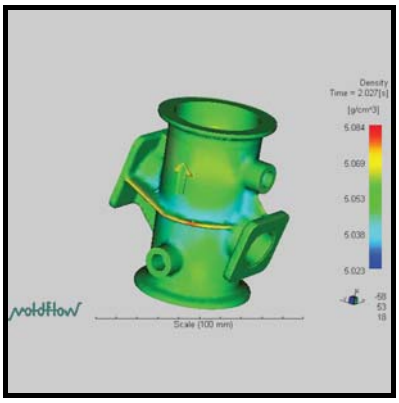
Why Rheology ?

Why Rheology? The single most important parameter in the processing of a molten polymer is the materials resistance to deformation and flow, or more simply defined, ***viscosity*** function – if it doesn't flow you can't process it! Rheological measurements are fast & accurate methods of providing quality control for all aspects of the process. Whether it be screening incoming raw materials, optimising the conversion process or investigating product failure, Gammadot Rheology has a rheometer able to provide this information in a fast & reproducible manner.

Quality Control

With the ever increasing costs of raw feedstock, and processors under pressure to use more recycled materials in product manufacture, the importance of controlling & optimising today's production processes is paramount. Key to minimising component reject rates is guaranteeing consistent material batches enter the production stream. Gammadot has many years experience tailoring quality control programmes to suit specific customer needs and therefore ensuring quality product by discriminating out of spec. materials offline.

Flow Simulation



Modern flow simulation software such as Moldflow and Sigmasoft 3D provide highly accurate models of the injection moulding process, but without the use of equally accurate material properties data, they are worthless – the old adage ***'rubbish in, rubbish out'*** holds true in process simulation. For this reason Gammadot offers comprehensive materials characterisation services supporting all of today's leading packages at extremely attractive prices.

Failure Analysis

Rheological measurements can play a key part in many plastics failure analysis projects, as techniques such as oscillatory rheometry are highly sensitive to changes in a materials structure and therefore can give first indications of failure cause: be it degradation due to inadequate drying of materials prior to processing, excessive thermal / shear history during conversion, the effects of service environment, or simply the wrong grade of material has been introduced into the process – oscillatory rheometry is an excellent first step towards solving the problem.

For More Detailed Information - www.gammadot.com

Gammadot Rheology, Unit 5C, Leaton Industrial Estate, Shrewsbury. Shropshire. UK. SY4 3AP
Email: enquiries@gammadot.com URL: http://www.gammadot.com
Tel: +44 (0)1939 291677 Fax: +44 (0)5600 753945