

Ultraform[®] in gas meter from Actaris

Case Study

Actaris, based in Reims, France, is one of the world's leading suppliers of equipment for measuring the flow of gases and liquids. The company has recently begun to use Ultraform[®] polyoxymethylene (POM) supplied by BASF for the housing of the measuring unit of the Gallus 2000 gas meter.

The Gallus 2000 model is a mechanical gas meter that operates according to the positive-displacement diaphragm principle. It is used to measure gas consumption in more than 5 million households throughout Europe. The central body and covers of the measuring unit are now being produced from Ultraform[®] N2320 003. Actaris previously used a glass fiber-reinforced thermoplastic polyester for the housing and components of the gas meter produced at the company's main European manufacturing facility at Reims. Ultraform[®] fulfils all the requirements that plastics used in gas meters have to meet, such as high dimensional stability and impermeability to gas, but it also offers advantages from the processing point of view. Many other components of the Gallus 2000 were already being produced from POM, and the changeover has reduced the complexity of the materials used in the appliance. More than 60 percent of the Gallus 2000 is now produced from POM.

Unlike the product that was formerly in use, Ultraform[®] does not have to be specially dried before it is processed. It is injection moulded at a temperature of ca. 200°C, which is 50°C lower than the molding temperature of the polyester. This reduces energy costs and shortens the cycle time. Because Ultraform[®] does not have to be reinforced with glass fibers, the wear on the injection moulding tools is reduced by about a half, and the components have less of a tendency to warp. The metrology of the gas meter is more stable. Ultraform[®] has been extensively tested in practice, and it is now in regular use in the series production of the Gallus 2000 gas meter. Now that Ultraform[®] has been

successfully introduced at the Actaris works in Reims, it will also be introduced at the production facilities in Italy, China and Argentina.

