

Case Study

Filter housing made of Durethan® AKV 35 H2.0 for eroding machines



Fig. 1 Cross section of a filter element

MANN+HUMMEL has been a specialist in the field of industrial filter technology for nearly six decades. The company boasts a wealth of know-how, and offers an extensive range of services and products. MANN+HUMMEL's customers include large companies in the automotive and machine manufacturing industry, such as manufacturers of building machinery, eroding machines, industrial washing machines etc. etc.

The above photo shows a filter element for an eroding machine. In the eroding process, effective filtration of the dielectric – in this case, fully demineralized water – is essential to ensure the high quality of the eroded component.

Material: Durethan® AKV 35 H2.0 901510 SR1
OEM: MANN+HUMMEL

The housing is made of Durethan® AKV 35 H2.0. This plastic, a polyamide 66 reinforced with 35 % glass fibers, is an economical, corrosion-free alternative to other materials. Compared with a metal version, a weight saving of 30 % was achieved for the housing.

Because the filter element has to withstand pressures of up to 3 bar during application, the material has to meet the following stringent demands:

- High strength
- Very good weld strength
- Good bonding properties
- Good chemical resistance

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Page 2 of 2 | Edition 18.01.2010 | TI 2007-013 EN

