

## Case Study

### Insulation rings made from Pocan<sup>®</sup> DP 2004



Figure 1 Thermal insulation rings for coffee machines

The extended Household Appliance Standard IEC 60335-1 covers the electrical, mechanical and thermal dangers as well as fire and radiation risks posed by electrical appliances used in the home and for similar purposes.

If household appliances are to be used unsupervised, the materials used to produce them must meet high glow wire test requirements.

[LANXESS Deutschland GmbH](http://www.lanxess.com) has developed new polyesters which meet the requirements stipulated by the Household Appliance Standard. These materials not only demonstrate high glow wire resistances but are also halogen-free and flame-retardant. They are therefore consistent with the current trend for halogen-free alternatives which is also found in the area of flame-retardant polyesters and are supplied as non-reinforced and fiberglass-reinforced grades.

**Material:** Pocan<sup>®</sup> DP 2004

**Industry:** Electrical/Electronics

Pocan<sup>®</sup> DP 2004 is a non-reinforced polyester containing a halogen- and antimony-free flame retardant. In accordance with IEC/EN 60335-1, it is suitable for use in unsupervised household appliances. A value of 800 °C is entered on the UL Yellow Card for the glow wire ignitability temperature (GWIT) and a value of 960 °C for the glow wire flammability index (GWFI).

The creep resistance of Pocan<sup>®</sup> DP 2004 according to CTI is listed in the highest PLC category (> 600 V), which greatly reduces the risk of a short circuit occurring and the risk of appliance faults as a result of creepage. Thanks to a PLC classification of 2 in the HWI test and 0 in the HAI test and a V-2 classification to UL 94, Pocan<sup>®</sup> DP 2004 can be widely used in insulation materials (UL 508).

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