

## Case Study

### VDE-certified Durethan® DP A 30 S FN30 for rotary and flip switches



Figure 1 Rotary and flip switches

The **Comelux S.r.l.** company with its head office in Milan produces electrical components, such as switches, control lamps, sockets and plugs. Examples of key markets for the Italian company are the household appliance industry and industrial electronics. As Comelux components are marketed globally, only materials complying with all international standards and regulations are used.

In response to the new household appliances standard IEC/EN 60335-1, LANXESS polyamides are now used which withstand the required high glow wire ignition temperatures of 775 °C.

Within its Durethan® product range, LANXESS offers a wide selection of flame-retardant polyamides which comply with the household appliances standard and are registered with UL and VDE. Durethan® DP A 30 S FN30 is an easy-flowing, non-reinforced PA 66 which, with its halogen-free, flame-retardant system, achieves a UL 94 V-0 flammability classification in all colors. The high glow wire resistance with a GWIT value of 775 °C and a GWFI

**Material:** Durethan® DP A 30 S FN30

**Manufacturer:** Comelux S.r.l., Italy

**Industry:** Electrical/Electronics

value of 960 °C are essential for use in unattended household appliances. In addition to the Yellow Card, Durethan® DP A 30 S FN30 has also attained VDE certification. This certificate allows the product to be used globally. The use of this polyamide therefore complies with IEC/EN 60335 without there being any need for an additional test on the finished part, as was previously the case. For the manufacturer, this means the highest possible degree of planning certainty right from the design phase.

Durethan® DP A 30 S FN30 also has outstanding electrical properties. Its creep resistance (CTI) achieves the highest possible value with a PLC of 0. The same holds true for the High Amp Arc Ignition Test (HAI) which also achieves the highest classification.

Durethan® DP A 30 S FN30, with its impressive list of properties, is the first choice for plastics processors manufacturing electronic components, particularly in the household appliances sector.

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Page 2 of 2, Edition 19.07.2007, TI 2007-016 EN

