

## Case Study

### Reset lever for circuit-breakers made of Pocan® DP 4035



Figure 1 Reset lever for circuit-breakers

The international [Legrand Group](#) is a leading supplier of products and system solutions for electrical installations and information networks for the housing construction, commercial and industrial sectors. Some 33,000 employees provide services for more than 130,000 products in over 60 countries. Legrand places great emphasis on innovative growth, with almost 5 % of the company revenue being invested in research and development each year. Another of the Group's core activities focuses on making its products and production facilities as ecologically sound as possible through energy savings, product selection and recycling.

For example, environmentally-friendly, halogen-free thermoplastics are used in the production of circuit-breakers. Among other things, these products must meet standardized requirements for fire behavior. Glass fiber- or mineral-reinforced polyamides are normally used for the housing. Now, the reset lever

**Material:** Pocan® DP 4035

**Manufacturer:** Legrand - BTicino GmbH

**Industry:** Electrical/Electronics

of Legrand's circuit-breakers is also being manufactured from a newly-developed halogen-free, flame-retardant polyester from LANXESS.

Pocan® DP 4035 meets the stringent requirements of the Legrand Group in terms of mechanical, rheological and flame-retardant properties. The material is a PBT blend reinforced with 30 % glass fibers. It achieves a UL (Underwriters Laboratories) 94V-2 flammability classification class in all colors. Halogen-free flame retardants are already being used today in response to the trend towards avoiding halogen-containing substances in products. However, the product characteristics also benefit from the new flame-retardancy. For instance, electrical properties such as tracking resistance (CTI: 1) and high-voltage arc tracking rate (HVTR: 0), which are also based on UL guidelines, offer significantly better values than polyesters containing halogen.

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