

## Case Study

### Pocan® S 7926 for electrical distribution boxes



Fig. 1: Electrical distribution box made of Pocan® S 7926

The German company **Bals** has been producing electrical plugs and sockets for the global market for more than 40 years. High quality has always been a top priority for the company. Every application is subject to endurance tests that are much tougher than real conditions, including blistering heat, icy temperatures, extreme moisture or even water, very fine dust particles or the coarsest dirt. Only top quality materials, such as stainless contact springs, brass-plated terminals, or glass fiber-reinforced contact carriers, are used in Bals's products. A product is only released for production once the whole series of tests have been concluded successfully.

Electrical distribution boxes used in industrial and domestic applications are classified as sensitive components in electrical and fire safety regulations. It is therefore important to select the right plastics. LANXESS Deutschland GmbH provides suitable materials for producing electrical distribution boxes in its Pocan (polyester) range.

Pocan S 7926 is an elastomer-modified, non-reinforced injection-molding grade with a low-migration flame retardant system. The UL 94 classification is V-0 at 1.5 mm. The GWFI (glow wire flammability index) is at the maximum value of 960 °C. Its electrical properties are impressive too – the CTI (Comparative Tracking Index) also achieves the highest possible value at 600 V, just like the HAI (High Amp Arc Ignition) value of 0. The All Colors listing allows Pocan S 7926 to be used in any color.

The outstanding electrical and flame-retardant features of Pocan S 7926 are complemented by robust mechanical properties. The toughness of the material is particularly important – flexural strain at flexural strength is 5 %, and the material does not break when subjected to impact tests at room temperature. In the Charpy impact test, the low-temperature impact strength at -30 °C for an unnotched test specimen is 160 kJ/m<sup>2</sup>.

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Durethan® and Pocan® are registered trade names of LANXESS Deutschland GmbH

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LANXESS Deutschland GmbH, Business Unit SCP

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