Renewable Raw Materials - The Future of Plastic Enclosures

On request, OKW now offers its design-oriented standard plastic enclosures in a bioplastic material. This biomaterial is entirely manufactured from renewable raw materials and is formulated to replace the fossil plastics currently being used.

Unlike conventional raw materials, bioplastics are largely CO2-neutral, irrespective of their subsequent utilization. After they have been used, materials made from plants release only the same amount of CO2 as they absorbed from the atmosphere during their growth phase.

After comprehensive tests with many different types of biomaterials, OKW decided in favour of the BIOGRADE® C7500 plastic produced by FKuR Kunststoff GmbH. This is obtained from almost 100% renewable raw materials - the initial products are cotton or wood. At the start of the process, the purified cellulose is esterified to obtain cellulose acetate (CA), which is then only slightly modified. This material has similar properties to ABS and can be processed using the normal injection molding method.

For indoor applications there are no restrictions to the life cycle of the enclosure. The heat distortion temperature is as high as 123°C. Customer-specific coloring is also possible through the use of 15 natural dyes.

Parts made of BIOGRADE® are biodegradable. After the biomaterial has been crushed mechanically, it is broken down into its non-toxic initial products by micro-organisms. If it is to be utilized thermally at the end of its useful life, this also guarantees carbon-neutral energy.

The environmental advantages of this recycling method are obvious. However, bioplastics have not only ecological advantages. They also help to preserve our raw material deposits and reduce our dependence on petroleum.

Customers can now request most standard OKW enclosures in bioplastic material. A minimum order quantity applies. More information can be found on the OKW website at www.okwenclosures.com [1].

Posted by Janine E. Mooney, Editor

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