Impact Properties of AURUM®

Engineering plastics are often used for moving parts, and impact resistance is considered as an important item of evaluation in selecting a proper resin. Generally, for the purpose of judging the brittleness or toughness of a material, fracture energy is determined by conducting an Izod impact test.

The notch dependence and thickness dependence of the Izod impact strength (fracture energy) of AURUM® are shown in Figs. 1 and 2, respectively.

The natural resin showed some notch and thickness dependence, but the GF- and CF-reinforced grades remained relatively stable. Further, it can be seen that the impact strength of the cut-notched articles was somewhat lower than that of the molded-notched articles. This is assumed to be due to a decline in the surface roughness caused by cutting and the occurrence of flashes, micro-cracks, etc.

Fig. 1 Notch Dependence of Impact Strength

![Graph showing Izod impact strength (Kg・cm/cm) vs. Notch diameter (mm) for various grades of AURUM®](image)

The information contained herein is based on the information and data available at this moment, but none of the data or evaluation results contained herein provide any warranty whatsoever.
Fig. 2  Thickness Dependence of Impact Strength

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