

Case Study

Durethan® DP 1801/30 for massagers



Figure 1 Wellbox® Body Optimizer

Guitay is a leading player in the field of tissue therapy and aims to provide access to the Louis-Paul Guitay method of tissue therapy to a wider public. Wellbox Tissular Therapy combines two new processes that have proven their worth throughout the world:

- The “Tissular Rolling”, with motorized rollers for in-depth tissue actions.
- The “Tissular Lifting”, with gentle pulsation for surface tissue.

This commitment led to development of the Wellbox, a special massager for tissue therapy. For the technical implementation of the Wellbox, the entire process chain (e.g. research, design, construction, manufacture) and the mechanical and electrical requirements of the materials used had to satisfy very strict standards. The hardware for the Wellbox was developed in close collaboration with Guitay, Mecaplast and Lanxess.

Material:	Chassis: Durethan® DP 1801/30
OEM:	Guitay
Molder:	Mecaplast
Industry:	Electrical/Electronics

Durethan DP 1801/30 was ideal for the Wellbox chassis. The key prerequisite for using this polyamide was the deployment of halogen-free fire retardants. Durethan DP 1801/30 is a 30 % glass-fiber-reinforced PA 6 that contains a nitro-organic fire retardant and has gained a V-2 classification in all typical wall thicknesses and colors. The GWFI (glow wire flammability index) is at the maximum value of 960 °C. The material's outstanding electrical properties are particularly important when using Durethan DP 1801/30 in E/E applications. The tracking resistance (CTI) is 550 V. The tracking rate (HVTR) has the highest possible PLC classification, 0, i.e. the tracking rate is between 0 and 10 mm/min. The same also applies to arc flammability (HAI), where the maximum classification is also achieved.

The mechanical properties of Durethan DP 1801/30 are another beneficial feature. The material's stiffness and toughness make it ideal for use as a chassis. In addition, the product exhibits high heat resistance.

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Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mold/die, the processing conditions and the coloring.

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