

**The possibilities of engineered speaker diaphragms: Introduction to the second generation Thin-ply Carbon Diaphragms – Composite Sound Metamodal®****by Martin Turesson- Composite Sound**

The first generation TPCDs showed that it is possible to increase the range of pistonic motion while at the same time reduce the mass and achieve a more controlled behavior compared to conventional hard diaphragms. Through proper engineering, the second generation TPCD enables performance and tailored behavior far beyond what is possible when relying on material properties alone. By tailoring the thickness and stiffness (including in different directions) in any given point of the Composite Sound Metamodal diaphragm, the range of pistonic motion can be maximized, the moving mass minimized and the way resonances occur can be controlled.

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