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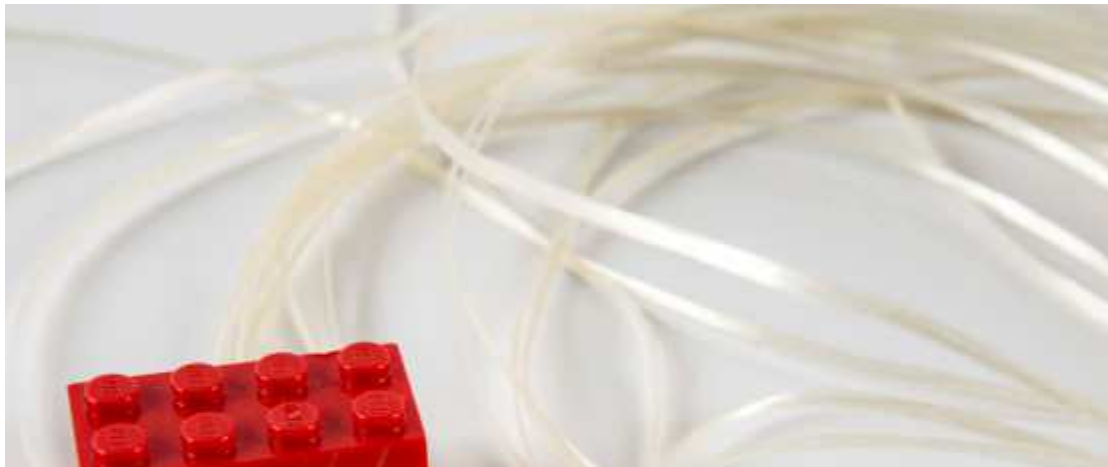
VECTRAN

Category[Plastics](#)**Code**

PLA1113

Country

Germany

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9 January 2018 - story by materia

Vectran is a high-performance multifilament yarn spun from liquid crystal polymer (LCP). This fibre has impressive strength and rigidity. The material is five times stronger than steel and ten times stronger than aluminium. It has high strength and modulus, excellent creep resistance, high abrasion resistance, and minimal moisture absorption.

LCP polymer molecules are stiff, rod-like

structures organised in ordered domains in the solid and melt states. These oriented domains lead to anisotropic behavior in the melt state, thus the term “liquid crystal polymer”. Vectran fibre is formed by melt extrusion of the LCP through fine diameter capillaries, during which the molecular domains orient parallel to the fiber axis.

The material can be used for marine, military, and

industrial rope and cable applications, and recreation and leisure products such as

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sailcloth, reinforced hulls, and fishing poles and lines.

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