

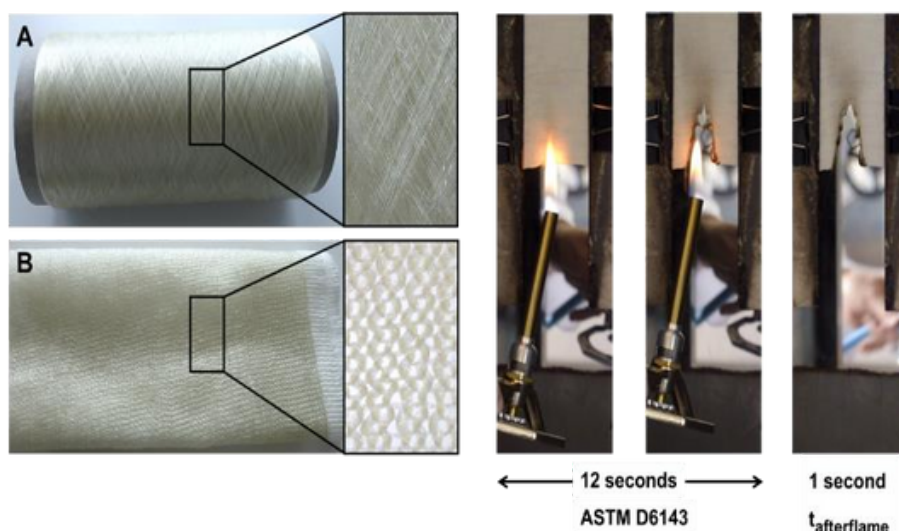
Field of use

Transport, Textile Industry,
Construction

**Current state
of technology**
Prototype**Intellectual property**
International patent
application number
18.180251.3**Developed by**
University of Ljubljana,
Faculty of Natural Sciences
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821-11/2018**Contact**

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**Background**

The demand for durable, fire retardant and cheaper technical textile is growing, especially in public buildings and transportation industry. Regulatory systems are constantly changing towards higher protection and decreased usage of harmful substances. Currently available fire retardant materials have different levels of toxicity, different level of durability and effectivity.

Description of the Invention

The invention relates to the preparation of polyamide 6 based on modified caprolactam with various molecules containing phosphorus and nitrogen atoms in the structure. The fire retardancy is achieved in the basic structure, it is incorporated into the material and not in the form of coating on pre-existing material. As such, it is more effective and suitable for the preparation of plastics, fireproof woven fabrics and non-woven textiles.

Main Advantages

Cheaper production and faster production time of fibres. Better mechanical characteristics of final products. Unified protection through whole surface. Recyclable.