



Technology Offer

Recyclable Flame Retardant Fibres

Field of use

Chemical industry
Electrical industry
Transport industry
Metals industry

Current state of technology

Prototype developed and tested

Patent status

Patent pending,
application number 18.180251.3

Developed by

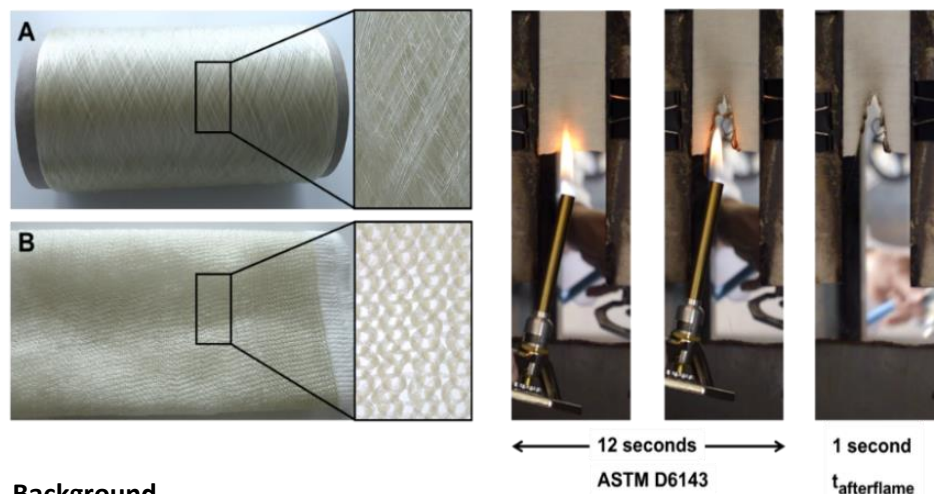
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Reference

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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.



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