



December 2017

Fluoropolymers:Textile

Introduction

Fluoropolymers provide a combination of waterproofing, breathability as well as low weight and thinness to clothing and footwear.

Textiles and clothing are an important sector in Europe, some 174,000 companies were active in this sector in the EU in 2013 with a turnover of almost €170bn and sustaining 1,700,000 employees. Small and medium enterprises (SMEs) are the backbone of the European sector, over 90% of textile companies have fewer than 50 employees and producing almost 60% of the sector's value added.

Fluoropolymers also provide unique properties for the treatment of organic waste as well as for industrial filtration.

Applications

- Jackets, trousers, gloves and footwear for private and professional use with increased comfort and performance
- Aerospace suits
- Outdoor applications like awnings, umbrellas, furniture, boat covers and sails
- Fabrics with ePTFE membrane are a key component for a composting solution for the treatment of organic waste (green waste, food waste, source separated organics, biosolids or Municipal Solid Waste - MSW)
- Industrial filtration and gas sampling to prevent emissions in the chemical and power sectors
- ePTFE sewing thread, fibers and weaving yarn are used in demanding environments and high performance ropes

Benefits

- Combination of waterproofing, breathability and comfort (thin and light)
- Increased lifetime of the product or building component, even in extreme environments
- Increased lifetime of the finished product
- Facilitates composting
- Non fouling and easy clean
- Chemical emission reduction



Innovations

- A lightweight, breathable and waterproof fabrics system using two ePTFE membranes that delivers high levels of thermal protection in firefighter gear while reducing the risk of burn injuries and heat stress in wet and dry conditions.
- Air filtration for Gas Turbines: highly efficient in capturing virtually all particles even in challenging wet and humid conditions over a long lifetime in comparison to other filter systems.

Disclaimer

The document cannot be reproduced for external distribution in any form without express written permission of PlasticsEurope Fluoropolymers Group. The information contained in this document is provided in good faith and, while it is accurate as far as the authors are aware, no representations or warranties are made with regards to its completeness and no liability will be accepted for damages of any nature whatsoever resulting from the use of or reliance on the information contained in this document.