

TITLE

New Fluorocarbon Resin Development.

ABSTRACT

C8 based fluorocarbon resins have been used for many years in a wide range of textile applications. In the late 1990's, it was discovered that certain compounds contained in or derived from these C8 perfluoro-based resins were present in very low levels in the blood of a wide variety of animal species, including humans. Not only were these compounds found to be present in the environment globally, they were also found to be bioaccumulative (tended to remain in the body for a long time). In the last few years, awareness and concern about this issue has increased in the industry, with regulatory authorities and with consumers, even though extensive research has shown that there are no adverse health effects from these fluorochemicals at the levels found.

In response to this issue, 3M has been developing and marketing a new generation of fluorocarbon products which can provide the same level of repellency, stain release or release/repel (Dual Action) performance, with a very favorable environmental, health and safety profile. Working in coordination with the textile auxiliary products and expertise at Bozzetto Group, the two companies are able to provide finishing solutions to meet a wide variety of customer requirements. The chemistry and application of this new generation of fluorochemical compounds will be discussed.

KEYWORDS: Fluorocarbon, Dual Action, water repellency, oil repellency, stain release