

75 FLUOROPRENE® XP50



THE FIRST COMPOUND OF THE NEW XP GENERATION

The Fluoroprene® XP family stands for versatility that delivers outstanding performance across the board. The universal sealing materials of this compound family are used throughout the entire process industry, with a particular focus on sensitive applications in the food, beverage, and pharmaceutical industries. **They provide equally impressive performance in aggressive CIP/SIP media, hot steam sterilization processes, and high-fat environments. Frequently changing media requirements are also handled with ease.** At the same time, the materials meet the highest demands for purity, extraction behavior, and minimal flavor transfer.

With 75 Fluoroprene® XP50, Freudenberg Sealing Technologies introduces the first material of the new generation of the Fluoroprene® XP family. The peroxide-crosslinked compound **based on FSF* polymer technology** addresses the growing technical as well as regulatory requirements of the market. Thanks to its clean composition, the material reliably meets all required certifications, making it an excellent sealing solution for direct product contact applications. **In the future, Fluoroprene® XP50 will partially replace the existing materials Fluoroprene® XP40 and Fluoroprene® XP41.**

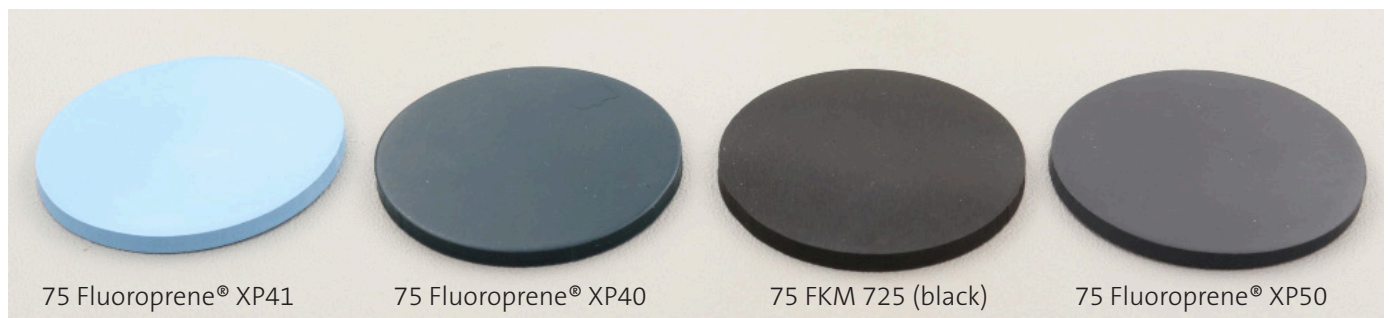
MATERIAL PROPERTIES

MATERIAL	COLOR	CROSS-LINKING	TEMPERATURE RESISTANCE	PROPERTIES AND ADVANTAGES
75 Fluoroprene® XP50	dark grey	peroxide	-15 °C to +200 °C / 5 °F to +392 °F	• Peroxide-crosslinked compound based on FSF polymer technology • Excellent and comprehensive media resistance • Suitable for applications with highest purity requirements • Extensive market-specific approvals: - EU 1935/2004 - BfR XXI (Cat. 4) - FDA § 177.2600 - 3-A Sanitary Standards - ISO 10993-5 Cytotoxicity incl. USP Chapter 87 and ISO 10993-23 Skin irritation potential - Currently in progress: BNIC, Decreto Ministeriale – DM 21/03/1973 and NSF51

APPEARANCE

The blue shades previously used for the Fluoroprene® XP40 and XP41 materials are being replaced by a slightly iridescent dark grey. This

makes it easy to identify the materials in use and helps ensure the safe separation of different material generations.



*FSF (Fluoro-Surfactant-Free)

BENCHMARK STUDY: CIP PERFORMANCE

Internal and external benchmark studies were conducted to thoroughly evaluate media resistance and ensure a high degree of consistency within the Fluoroprene® XP family. Freudenberg Sealing Technologies evaluated the Fluoroprene® XP50 material in comparison to competitive materials as well as to the previous variants, Fluoroprene® XP40 and XP41 (see Figs. 1–4). The tests were carried out under realistic and demanding conditions using the maximum typical concentration and temperature values. The test media included CIP/SIP cleaning and disinfection solutions

(2% acidic, 5% alkaline, and 2% oxidative) as well as superheated steam, each applied in continuous contact for 168 hours. Changes in mass, volume, hardness, and tensile properties were determined and evaluated comparatively.

The result: Fluoroprene® XP50 confirms the proven performance of the Fluoroprene® XP family. Compared to the tested competitive materials, the material impresses with a balanced property profile even under highly demanding cleaning and disinfection conditions.

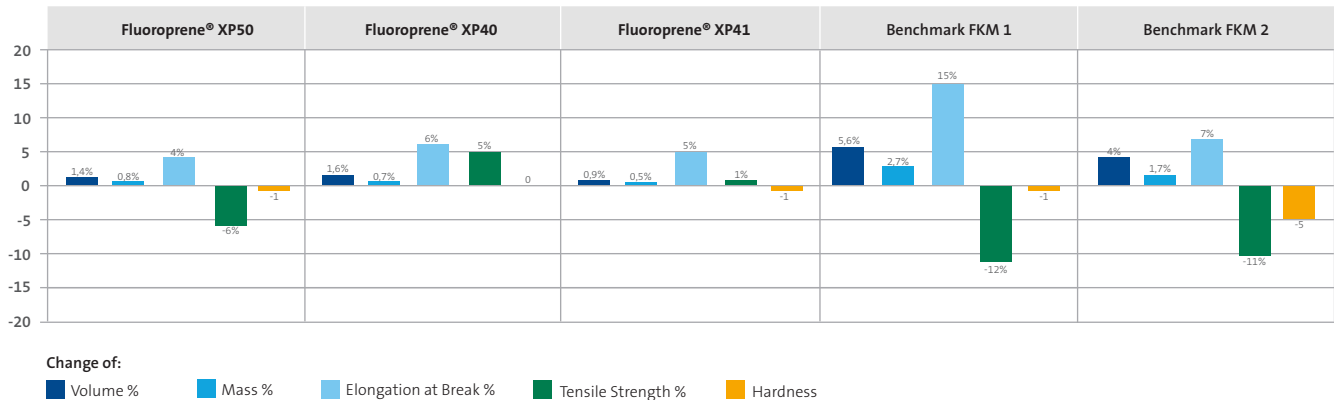


Fig. 1: Storage test in an acidic CIP cleaner (2%) at 80 °C / 176 °F after 168 h

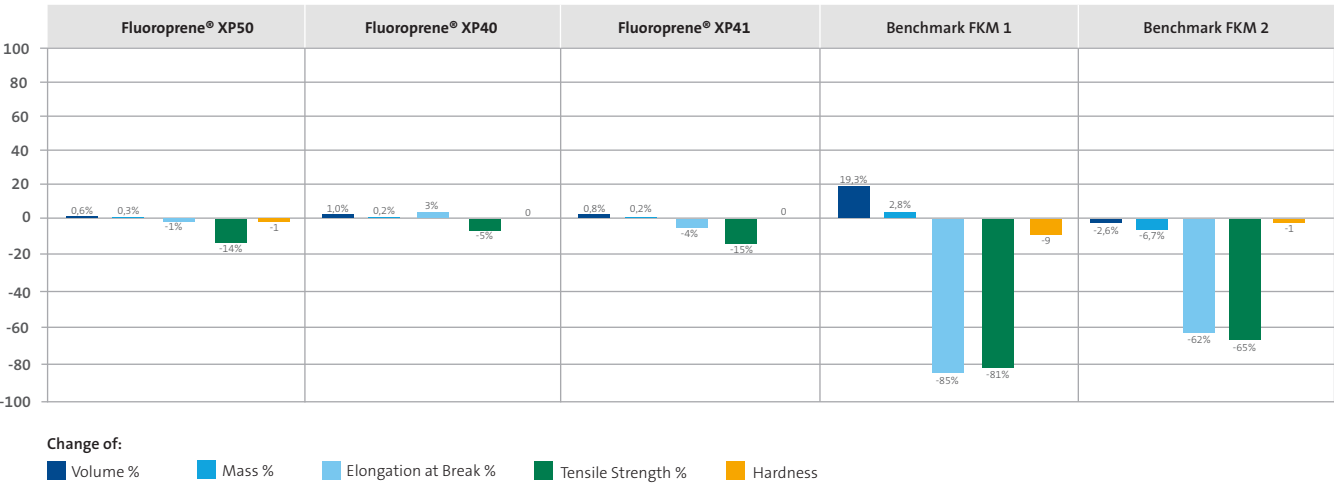
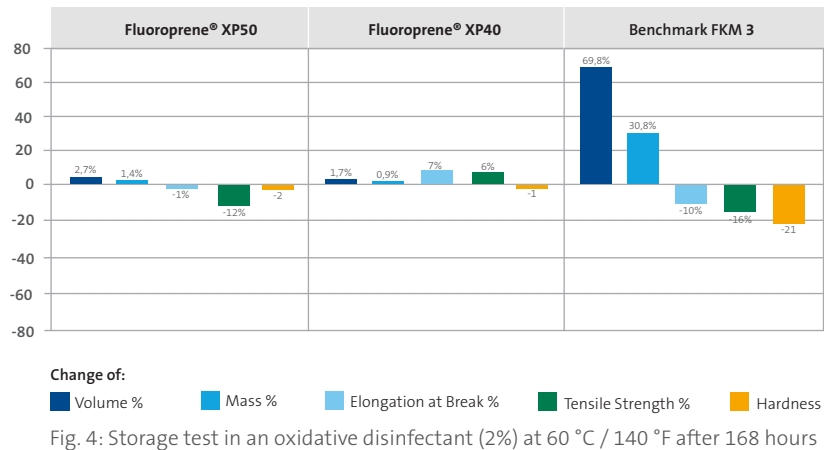
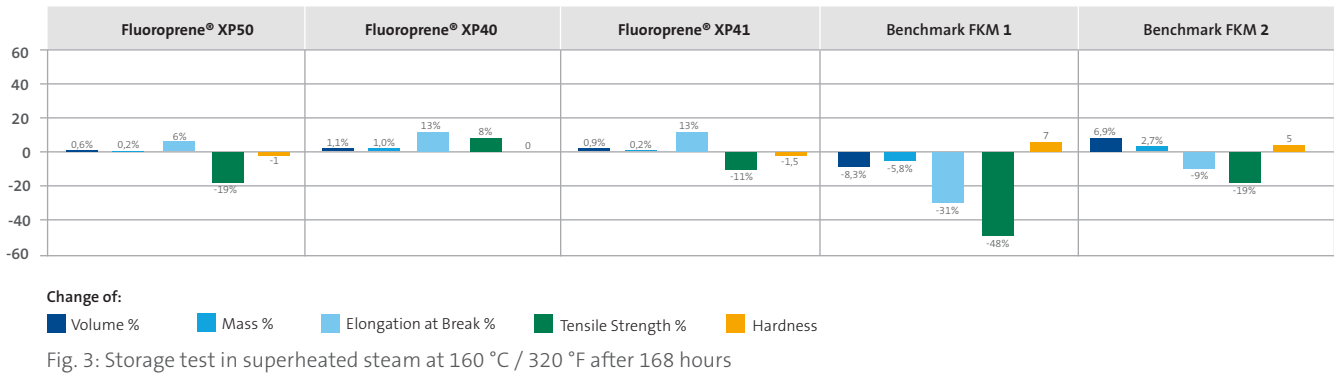


Fig. 2: Storage test in an alkaline CIP cleaner (5%) at 80 °C / 176 °F after 168 h

75 Fluoroprene® XP50 – The first compound of the new XP generation



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