

Functional PFPE

Surface coating for better
look, feel and cleanliness.

Functional PFPE Polymers

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Functional polymers are used for the coating of even surfaces like glass or stainless steel to make them more slidable and resistant to dirt and water. These polymers also reduce the occurrence of fingerprints and dirt residue. This not only provides visual advantages but also contributes to more safety, for example, by preventing thieves from deciphering the pin-code of stolen mobile phones by means of fingerprints on the display.



In contrast to other surface coatings functional PFPE not only create an hydrophobic and oleophobic layer on surfaces but also equip them with chemically resistant properties. Due to these characteristics the functional PFPE by Chemours™ are products of first choice for the treatment of surfaces, which often undergo cleaning and disinfection processes.



Anti-Fingerprint-Coating

Hydrophobic and Oleophobic

Easy to clean

Functional polymers are fluorinated basics for polymers and coatings making them oil and water resistant and reducing their friction coefficient. Functional polymers consist of a combination of monofunctional hexafluoropropylene polyether and the functional end group trimethoxysilane. Their molecular weight ranges from 1,800 to 8,000 g/mol. Trimethoxysilane has numerous advantages compared to carboxylic acid, methyl ester, methyl alcohol or allyl ether.



Applications

Functional PFPE polymers are suitable for applications, which require abrasion resistance, soft haptic feel and easy cleaning. They can be applied on glass (gorilla, sapphire, lime-soda glass), aluminium and steel surfaces that serve as touchscreens, panes, bottles, lenses, bathroom glass and smartphone-displays.



Functional PFPE polymers can also be used as surfactant adhesives in fluorinated liquids and fluorine-based solid dispersions, whereby the functional end group reacts with the basic polymer. The addition of functional PFPE can improve abrasion and friction resistance, demoldability, process capability, and the more.

Properties:

Functionalized PFPE polymers equip surfaces with hydrophobic and oleophobic characteristics increasing their abrasion resistance and durability. They produce a protective layer against dirt and fingerprints and make the surfaces easy to clean. Functional PFPE also reduce the friction coefficient and form a chemically resistant coating which is extremely thin and transparent. This UV-resistant layer is invisible but still highly stable and permanent.



Chemically inert surface

Stable and transparent



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