

Simriz® 506

White perfluoroelastomer for the pharmaceutical industry



Simriz® 506 is the new white perfluoroelastomer (FFKM) from Freudenberg Process Seals, which has been specially developed for the demanding requirements of the pharmaceutical industry, such as extremely aggressive solvents.

In order to produce high-quality white materials, highly active mineral fillers have to be used. This is the only way in which a specification with low leachability, good resistance to chemicals and the best possible mechanical properties can be guaranteed.

This compound represents the technical solution, particularly for applications standing in contact with highly aggressive media such as in active ingredient synthesis.

Your benefits at a glance:

- Excellent resistance to high temperatures and chemicals
- Outstanding suitability for contact with critical media, such as aggressive acids and alkalis, organic solvents, flavors and in particular multi component mixtures
- The ideal solution for hygienically demanding applications in the pharmaceutical, cosmetics and food processing industries
- Available in a wide range of products

The overall performance of the white FFKM perfluoroelastomer material Simriz® 506 is comparable with that of black Simriz® 494. The white perfluoroelastomer material Simriz® 506 is therefore not only the best perfluoroelastomer material for the processing industry, but is also the ideal complement to a range of materials in areas where it was formerly necessary to accept black perfluoroelastomers or lower service life.

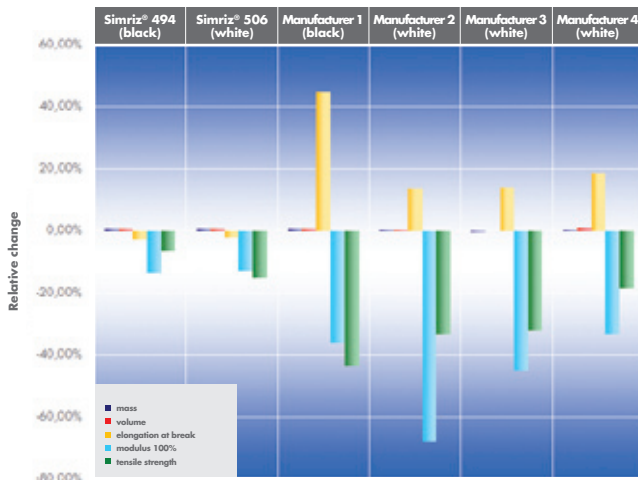
Material specification	Simriz® 506	Simriz® 494
Color	white	black
Density [g/cm ³]	2	1.91
Hardness [Shore A]	72	78
Modulus 100 [N/mm ²]	9.3	9.7
Tensile strength [N/mm ²]	22.4	16.8
Elongation at break point [%]	165	161
Compression set 24h/200°C [%]	25	
Compression set 70h/200°C [%]		20
Low temperature datum [°C]	-2	-1

Releases and approvals	Simriz® 506	Simriz® 494
FDA	X	X
ADI-free®	X	X
USP Class VI	X	X

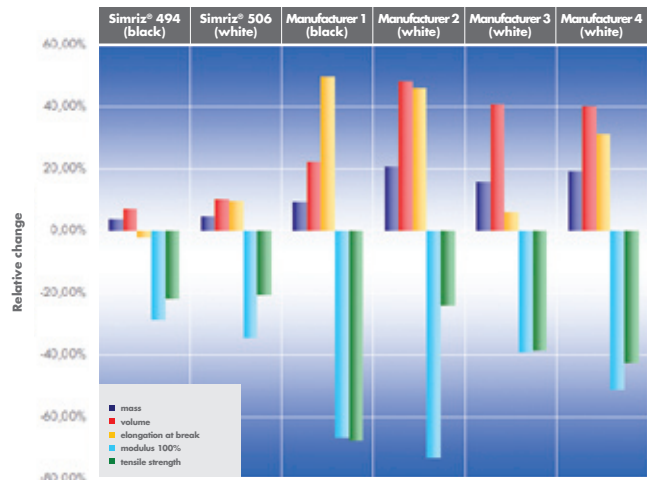
White Simriz® 506 has demonstrated its excellent properties in extensive tests. In direct comparison with white perfluoroelastomer materials from other manufacturers, outstanding results were achieved in all the media tested.

Freudenberg
Sealing Technologies

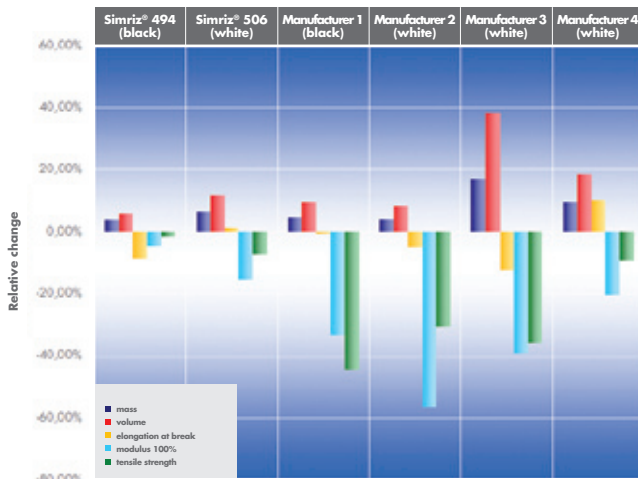
Benchmark perfluoroelastomers



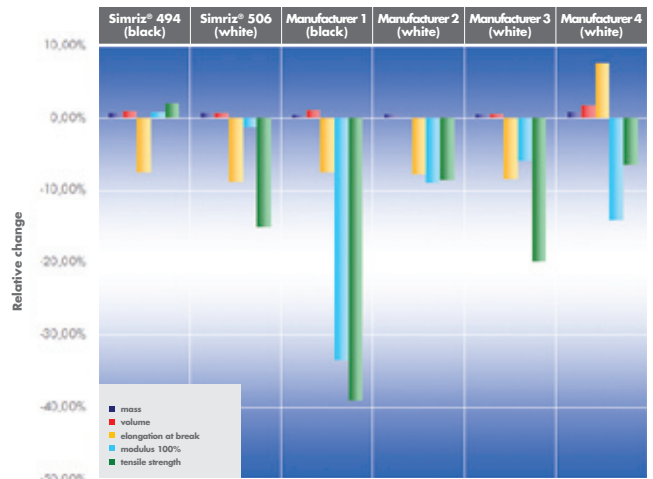
Relative change of mass, volume, elongation at break, modulus at 100% elongation and tensile strength after 72 hours exposure to steam at 200°C.



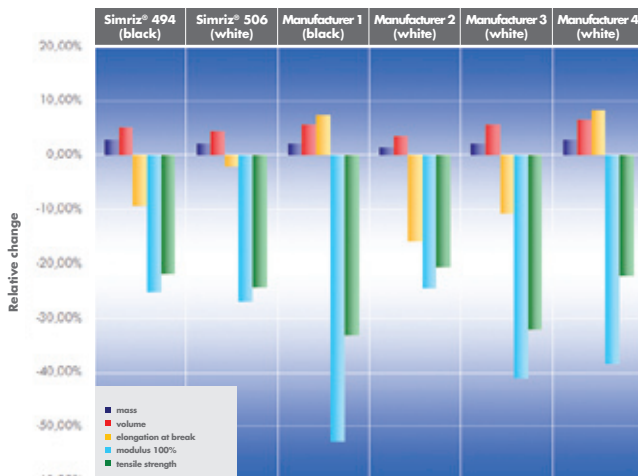
Relative change of mass, volume, elongation at break, modulus at 100% elongation and tensile strength after 72 hours exposure to ethylenediamine at 100°C.



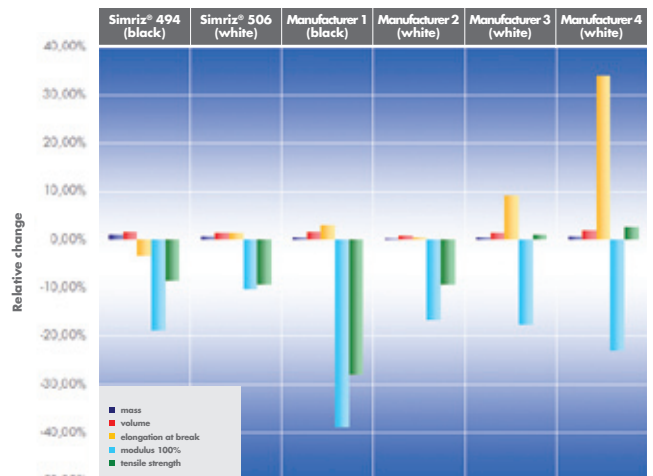
Relative change of mass, volume, elongation at break, modulus at 100% elongation and tensile strength after 72 hours exposure to acetic acid at 98°C.



Relative change of mass, volume, elongation at break, modulus at 100% elongation and tensile strength after 72 hours exposure to methanol at 64°C.



Relative change of mass, volume, elongation at break, modulus at 100% elongation and tensile strength after 72 hours exposure to ethyl acetate at 70°C.



Relative change of mass, volume, elongation at break, modulus at 100% elongation and tensile strength after 72 hours exposure to acetonitrile at 70°C.

Freudenberg Process Seals GmbH & Co. KG

Lorscher Straße 13, 69469 Weinheim, Germany
 Phone: +49 (0) 6201 80 8919-00, Fax: +49 (0) 6201 88 8919-69
 fps@fst.com, www.freudenberg-process-seals.com

Freudenberg
 Sealing Technologies