

Compatibility with Plastics and Elastomers

Opteon™ YF Compatibility with Plastics. % weight change after 2 weeks at 100 °C (212 °F) in HFO-1234yf vs. R-134a

Polymer	Immediately after exposure		24 hr after exposure	
	R-134a	HF0-1234yf	R-134a	HF0-1234yf
Polyester Resin	7.6	4.2	2.2	2.3
Nylon Resin	0.3	-0.2	-0.5	-0.4
Epoxy Resin	0.1	-0.1	-0.3	-0.1
Polyester PET	9.3	5.3	5.8	3.8
Polyester PBT	12.5	1.1	12.3	1.1
Polycarbonate	4.2	0.9	3.9	0.8
Polyimide	3.7	3.4	3.2	3.2
Polyethylene	1.3	1.7	1.1	1.3
PTFE	2.7	3.0	2.3	2.4
FEP	3.1	3.8	2.7	3.2
ETFE	6.0	4.9	4.8	4.2
Phenolic Resin	-0.8	-0.8	-1.0	-0.8
Acetal Resin	2.7	0.7	2.1	0.6
PET Film	0.8	-1.0	-1.3	-2.1

Comparable degree of interaction between plastics and R-134a and HFO-1234yf

Opteon™YF Compatibility with Elastomers. % weight change after 2 weeks at 100 °C (212 °F) in HFO-1234yf vs. R-134a

Elastomer	Immediately after exposure		24 hr after exposure	
	R-134a	HF0-1234yf	R-134a	HF0-1234yf
Neoprene WRT	2.6	2.4	1.3	1.3
HNBR	15.2	5.2	9.9	4.4
NBR	14.1	5.8	8.0	4.6
EPDM (Nordel®)	3.6	3.5	0.7	0.6
Silicone	10.6	2.0	-0.1	-0.4
Butyl Rubber	4.1	5.0	3.2	4.1
Terminal Seal	2.2	4.8	0.8	2.0
Buna S (SBR)	2.7	2.1	1.1	0.8
Viton®	47.4	20.0	8.0	8.0
Hypalon®	3.2	2.7	2.6	2.4
Neoprene 0-ring	-0.4	3.0	-0.5	2.3

Overall: Comparable degree of interaction of elastomers with HFO-1234yf and R-134a

This information is based on testing of selected materials. It is always possible that materials made by different manufacturers under different processes have different results. Therefore, it is always advisable to have the material supplier provide compatibility information.

For more information on the Opteon family of refrigerants, or other refrigerants products, visit opteon.com or call (800) 235-7882.

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