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General Replacement Guide

R-404A & R-407A/C/F Replacements*

Product Name	ASHRAE#	Applications ²	Safety Class ³	Equipment Type
Opteon™ XP40	R-449A	LT, MT, AC	A1	New, Retrofit
Opteon™ XP44	R-452A	LT, MT, TR	A1	New, Retrofit
Opteon™ XL40	R-454A	LT, MT, AC, HP	A2L	New
Opteon™ XL20	R-454C	LT, MT, AC	A2L	New

R-410A Replacements*

Product Name	ASHRAE#	Applications ²	Safety Class ³	Equipment Type
Opteon™ XL41	R-454B	AC, HP	A2L	New
Opteon™ XL55	R-452B	AC, HP	A2L	New

R-134a Replacements*

Product Name	ASHRAE#	Applications ²	Safety Class ³	Equipment Type
Opteon™ XP10	R-513A	MT, AC	A1	New, Retrofit
Opteon™ XL10	R-1234yf	MT, AC	A2L	New

R-22 Replacements*

Product Name	ASHRAE#	Applications ²	Safety Class ³	Equipment Type
Opteon™ XP40	R-449A	LT, MT, AC	A1	New, Retrofit
Opteon™ XL20	R-454C	LT, MT, AC	A2L	New
Freon™ MO99	R-438A	AC	A1	Retrofit

R-123 & R-245fa Replacements*

Product Name	ASHRAE#	Applications ²	Safety Class ³	Equipment Type
Opteon™ MZ	R-1336mzz(Z)	AC, HP, WHR	A1	New
Opteon™ XP30	R-514A	AC	B1	New, Retrofit

*For more detailed information on Refrigerants from Chemours and their applications, visit www.Freon.com, www.opteon.com

¹ GWP = IPCC Fifth Assessment Report, AR5

² LT=Low Temperature, MT= Medium Temperature, A/C=Air Conditioning, TR = Transport, HP = Heat Pump, WHR = Waste

³ Safety Class according to ASHRAE Standard 34 and ISO 817

⁴ MO=Mineral Oil, AB=Alkylbenzene, POE=Polyol Ester

Compatible Oil ⁴	GWP ¹
POE	1282
POE	1945
POE	238
POE	146

R-404A Retrofit Recommendations

LT/MT: Opteon™ XP40: Excellent performance match & lower energy consumption with 64 % lower GWP.

LT: Opteon™ XP44: Closest match & low discharge temperature with 45 % lower GWP.

Compatible Oil ⁴	GWP ¹
POE	467
POE	676

Compatible Oil ⁴	GWP ¹
POE	573
POE	<1

R-134a Retrofit Recommendations

Opteon™ XP10: Excellent performance match with 56 % lower GWP vs. R-134a.

Compatible Oil ⁴	GWP ¹
POE	1282
POE	146
MO, AB, POE	2059

R-22 Retrofit Recommendations

LT/MT: Opteon™ XP40: Excellent performance match & lower discharge temperature vs. R-22 with 27 % lower GWP.

A/C: Freon™ M099: Closest MO compa-tible performance match to R-22 in A/C.

Compatible Oil ⁴	GWP ¹
POE	2
POE	2

om, and consult local country-specific regulations

-Heat Recovery

For more detailed information on refrigerants from Chemours, visit www.freon.com and www.opteon.com.

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