

# DuPont™ Suva® refrigerants

## DuPont™ Suva® 407C (R-407C) Frequently Asked Questions (FAQ)

**Q: What is R-407C?**

**A:** R-407C is an HFC alternative for R-22 in positive displacement air conditioning equipment. It is currently being used in commercial and light commercial a/c units using air cooled DX chillers.

R-407C can also be used in many medium-temperature refrigeration systems that formerly used R-22.

R-407C can also be used to replace R-502 in new and existing medium-temperature applications with evaporator temperatures above 20°F.

**Q: Where can I buy R-407C?**

**A:** DuPont is a leading producer of R-407C under the brand name of DuPont™ Suva® 407C. All DuPont distributors have access to the product. You should talk with your distributor so he knows to stock Suva® 407C. You will also want to keep Suva® 407C on hand to ensure that you are prepared to handle customer requests when they come in.

**Q: Is R-407C a blend refrigerant?**

**A:** Yes. It is a blend of HFC-32, HFC-125 and HFC-134a (23/25/52 wt%). Suva® 407C can be topped off after a leak multiple times with minimal impact on system performance.

**Q: How should I charge R-407C?**

**A:** For optimum performance, R-407C should be removed from the cylinder as a liquid. The cylinder is marked with an arrow showing the proper position for removing liquid.

**Q: What type lubricant should be used with R-407C?**

**A:** A high-quality POE (polyol ester) lubricant is recommended. Always consult the compressor or system OEM.

**Q: Do I need different service tools to work on R-407C systems?**

**A:** No, since the chemical and physical properties of R-407C are very similar to R-22, you can use existing service tools. However, take care to avoid cross contamination of different types of refrigerants and lubricants.

**Q: How will system operation for R-407C be different than R-22?**

Properties	R-407C vs. R-22
Discharge Pressure	+15 to +25 psi
Cooling Capacity	-2% to +2%
Discharge Temperature	-10 to -15°F
Energy Efficiency	Depends on equipment design, but will be very similar to R-22

**Q: Will R-407C systems have different components than R-22 systems?**

**A:** Although the operating characteristics of R-407C are very similar to R-22, components in new systems may be slightly modified to obtain optimum performance. Components in existing R-22 systems are most likely compatible with R-407C. You should always consult the equipment OEM before any retrofit.

**Q: Can R-407C be used to retrofit existing R-22 air conditioning equipment?**

**A:** Yes, since the operating characteristics are nearly the same as R-22, existing A/C equipment can be retrofit to R-407C. **Always** consult the OEM for retrofit guidelines.



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**Q: Can R-407C be used to retrofit existing R-22 refrigeration equipment?**

A: Yes, Suva® 407C can be used in many medium-temperature refrigeration systems that formerly used R-22. Always consult the system OEM.

**Q: Can R-407C be used to retrofit existing R-502 equipment?**

A: Yes. The operating characteristics of R-407C are similar to R-502, with the added benefit of higher energy efficiency. However, some control components may need to be replaced or adjusted to achieve optimum performance. **Always** consult the OEM for retrofit guidelines.

**Q: How will system operation for R-407C be different than R-502?**

Properties	R-407C vs. R-502
Discharge Pressure	-5 to -10 psi
Cooling Capacity	-5%
Discharge Temperature	+20 to +30°F
Energy Efficiency	Depends on equipment design, but will be about 5% higher than R-502

**Q: Will R-407C systems have different components than R-502 systems?**

A: Components in new systems may be slightly modified to obtain optimum performance with R-407C. Components in existing R-502 systems are most likely compatible with R-407C; but some components, such as pressure regulators and expansion devices, may have to be replaced and/or adjusted. You should always consult the equipment OEM before any retrofit.

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**For Further Information:**

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