



## 1. What is Solstice® N40?

Solstice N40 is the Honeywell brand name for R-448A and is part of the Solstice family of refrigerants. R-448A has been designed to replace R-507A, R-404A and R-22 in commercial refrigeration applications.

## 2. Is R-448A approved for use under the current EPA guidelines?

Yes, R-448A has been approved by the EPA under its [final SNAP rule](#) for supermarket, remote condensing units and self-contained units\*. R-448A is an A1 ASHRAE refrigerant and is UL listed, making it suitable for use in both retrofit and new systems.

*\*R-448A has been approved for low temperature self-contained applications. Medium temperature self-contained applications are still pending SNAP approval.*

## 3. Can R-448A be used for retrofits? If so, what refrigerants can I retrofit with R-448A?

Yes, R-448A is suitable for retrofitting R-507A, R-404A, and R-22. R-448A is a near 'drop in' replacement for these products. Be certain to follow Honeywell's retrofit guidelines. Retrofit guide books can be found [here](#), under "All Retrofit Resources".

In addition, R-448A can be used to retrofit HP-80, HP-81 and R-408A. Given that these systems are typically older, we encourage you to contact Honeywell technical services team to help check the equipment that is in use before you move forward with the retrofit.

## 4. What is the Global Warming Potential (GWP) of R-448A?

R-448A has a GWP of 1273 as listed in IPCC rev 5. R-448A has the lowest GWP of any A1 (non-flammable) rated refrigerant that matches the capacity of current products such as R-404A and R-22.

## 5. Is R-448A approved by compressor manufacturers?

Yes, [Copeland](#), Bitzer, Carlyle and many other leading compressor and component OEM's have approved R-448A for use in their products. Component suppliers such as Parker Sporlan have it approved as well. It is important to follow the manufacturer's recommendations when using this product.

## 6. What lubricant is used with R-448A?

Synthetic lubricants such as POEs are approved and suitable for use with R-448A. Conversions from R-507, R-404A, and the R-407 series of blends will generally not require an oil change. Consult the compressor manufacturer for their lubricant recommendations. If

converting from R-22, be certain to convert to a synthetic lubricant as many R-22 systems use mineral oil.

**7. Do I need to change or adjust the expansion device (TX Valve) when retrofitting?**

When retrofitting R-404A or R-507A systems, it is likely that the existing valve will maintain superheat with R-448A. Due to the lower mass flow of R-448A, an adjustment (closing) to the valve is likely. The general rule of thumb is two turns inwards. Nonadjustable expansion valves will need to be replaced, and capillary tube devices will need to be modified. Please refer to [Honeywell's retrofit guide](#) for more information.

When retrofitting R-22 systems, the installed expansion valve should be suitable and may not require much adjustment, if any. R-448A has a similar mass flow to R-22, so that is why expansion valve changes will most likely not be needed. Please refer to [Honeywell's retrofit guide](#) for more information.

**8. Is R-448A in use today? Where can I buy R-448A?**

Yes, R-448A is successfully operating in many supermarkets and supermarket chains across the U.S., Europe and Asia. Please check our website for the latest case studies and webinars that review some of the applications.

Solstice N40 (R-448A) is available from approved wholesalers and distributors across the all major regions of the world.