



ADDENDA

**ANSI/ASHRAE Addendum s to
ANSI/ASHRAE Standard 34-2019**

Designation and Safety Classification of Refrigerants

Approved by ASHRAE and the American National Standards Institute on June 30, 2021.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (<https://www.ashrae.org/continuous-maintenance>).

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Cognizant TC: 3.1, Refrigerants and Secondary Coolants

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FOREWORD

Addendum s adds the zeotropic refrigerant blend R-448B to Tables 4-2 and D-2.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum s to Standard 34-2019

Modify Tables 4-2 and D-2 as shown.

Table 4-2 Data and Safety Classifications for Refrigerant Blends

Refrigerant Number = 448B

Composition (Mass %) = R-32/125/1234yf/134a/1234ze(E) (21.0/21.0/20.0/31.0/7.0)

Composition tolerances = +0.5,-2.0/+2.0,-0.5/+0.5,-2.0/+2.0,-1.0/+0.5,-2.0

OEL = 850 ppm v/v

Safety Group = A1

RCL = 97,000 ppm v/v; 22.0 lb/Mcf; 350 g/m³

Highly Toxic or Toxic Under Code Classification = Neither

Table D-2 Data Classifications for Refrigerant Blends

Refrigerant Number = 448B

Composition (Mass %) = R-32/125/1234yf/134a/1234ze(E) (21.0/21.0/20.0/31.0/7.0)

Average Relative Molar Mass = 89.3 g/mol

Bubble Point (°F) = -47.3

Dew Point (°F) = -35.1

Bubble Point (°C) = -44.1

Dew Point (°C) = -37.4

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