



BSR/ASHRAE Addendum j
to ANSI/ASHRAE Standard 34-2024

Public Review Draft

Proposed Addendum j to Standard 34-2024, Designation and Safety Classification of Refrigerants

First Public Review (February 2025)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This proposed addendum clarifies the flammability test conditions and the minimum required resolution for the test conditions.

Note: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.

Addendum j to Standard 34-2024

Modify section B as follows. The remainder of Section B remains unchanged.

B1.9 Flammability Test Data Required. Applications shall include test results determined in accordance with Section B1. Test conditions shall be controlled to the tolerances cited below. Applications shall include tabulated flammability test data for each refrigerant or refrigerant blend composition tested. These data shall include but are not limited to the following:

- a. Refrigerant blend composition tested: ~~$\pm 0.1 \pm 0.5$~~ ± 0.5 mass percent ~~or one-fourth of the composition tolerance range, whichever is smaller~~
- b. Flammability test temperature: $\pm 5^{\circ}\text{F}$ ($\pm 3^{\circ}\text{C}$)
- c. Fractionation or leak test temperature: ~~$\pm 0.2^{\circ}\text{F}$ (0.1°C)~~ $\pm 2^{\circ}\text{F}$ ($\pm 1^{\circ}\text{C}$)
- d. Test pressure: ~~± 0.1 psi (0.7 kPa)~~ between 14.1 psia (97.3 kPa) and 15.1 psia (104.0 kPa)
- e. Humidity: ~~0.0088 ± 0.0005~~ ± 0.0005 g of water vapor per gram of dry air
- f. Refrigerant/air concentration: $\pm 0.2\%$ by volume
- g. Spark duration: ± 0.05 seconds
- h. ~~Flame propagation determination as measured from the point of ignition to the walls of the flask: ± 5.0 degrees~~

The minimum measurement resolution required for various test conditions are listed below

- a. Refrigerant blend composition tested: 0.1 mass percent
- b. Flammability test temperature: 0.2°F (0.1°C)
- c. Fractionation or leak test temperature: 0.2°F (0.1°C)
- d. Test pressure: 0.1 psi (0.7 kPa)
- e. Humidity: 0.0001 g of water vapor per gram of dry air
- f. Refrigerant/air concentration: 0.1% by volume
- g. Spark duration: 0.01 seconds
- h. Flame propagation determination as measured from the point of ignition to the walls of the flask: 1.0 degrees