



ADDENDA

**ANSI/ASHRAE Addendum o to
ANSI/ASHRAE Standard 34-2024**

Designation and Safety Classification of Refrigerants

Approved by ASHRAE and the American National Standards Institute on August 31, 2026.

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 (www.ashrae.org/continuous-maintenance).

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Cognizant TC: 3.1, Refrigerants and Secondary Coolants

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FOREWORD

Addendum o clarifies the definitions of WCF and WCFE.

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

Addendum o to Standard 34-2024

Add new Sections 6.1.5.2.1 and 6.1.5.2.2. The remainder of Section 6 remains unchanged.

6.1.5.2 Flammability Classification. Blends shall be assigned a flammability classification based on the requirements in Section 6.1.3.

6.1.5.2.1 WCF. The highest concentration of flammable components with respect to LFL is that which provides the lowest LFL value. The most flammable composition with respect to burning velocity is that which provides the highest burning velocity value for the blend. First, the WCF is determined based on the composition with lowest LFL as noted in Section 6.1.3. If the applicant wants to apply for 2L classification, the burning velocity will be determined based on Section 6.1.3.

6.1.5.2.2 WCFE. The highest concentration of flammable components with respect to LFL is that which provides the lowest LFL value. The most flammable composition with respect to burning velocity is that which provides the highest burning velocity value for the blend. Priority is given to determining the WCFE for the composition with lowest LFL first, after which the classification of 2L may be given based on the composition that gives the highest burning velocity per the requirements of Section 6.1.3.

See Informative Appendix K for an example of WCF selection for BV and LFL.

Add new Informative Appendix K as shown.

(This appendix is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

INFORMATIVE APPENDIX K

EXAMPLE OF WCF SELECTION FOR BV AND LFL

Example

This appendix provides an example of how to apply Sections 6.1.5.2.1 and 6.1.5.2.2 by looking at a proposed R-32/1234yf (50/50 wt%) blend with tolerance of +/-2 wt% for both components.

Determine WCF LFL Based on Each Refrigerant LFL Value (vol%) per Table 4-1

- R-32 has an LFL of 14.4 vol%.
- R-1234yf has an LFL of 6.5 vol%.

<u>Refrigerant</u>	<u>LFL</u>	<u>Nominal</u>	<u>Range</u>	<u>WCF_{LFL} based on Most Flammable Composition</u>
<u>R-32</u>	<u>14.4 vol%</u>	<u>50</u>	<u>48–52</u>	<u>48</u>
<u>R-1234yf</u>	<u>6.5 vol%</u>	<u>50</u>	<u>48–52</u>	<u>52</u>

Determine WCF BV Based on Each Refrigerant BV Value (cm/s) per Table 4-1

- R-32 has a BV of 6.7 cm/s.
- R-1234yf has a BV of 1.5 cm/s.

<u>Refrigerant</u>	<u>BV</u>	<u>Nominal</u>	<u>Range</u>	<u>WCF_{BV} Based on Highest BV composition</u>
<u>R-32</u>	<u>6.7 cm/s</u>	<u>50</u>	<u>48–52</u>	<u>52</u>
<u>R-1234yf</u>	<u>1.5 cm/s</u>	<u>50</u>	<u>48–52</u>	<u>48</u>

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ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

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