

European Aviation Safety Agency

European Technical Standard Order (ETSO)

Subject: **GALLEY CART, CONTAINERS AND ASSOCIATED
COMPONENTS**

1 - Applicability

This ETSO gives the requirements which Galley Cart, Containers and Associated Components that are manufactured on or after the effective date of this ETSO must meet in order to be identified with the applicable ETSO marking.

2 - Procedures

2.1 - General

Applicable procedures are detailed in CS-ETSO Subpart A.

2.2 - Specific

None

3 - Technical Conditions

3.1 - Basic

3.1.1 - Minimum Performance Standard

SAE AS 8056 "*Minimum Design and Performance of Airplane Galley In-Flight Carts, Containers, and Associated Components*" from November 2004, as amended by **Appendix 1** of this ETSO.

3.2 – Specific

None

4 - Marking

4.1. - General

Marking is detailed in CS-ETSO Subpart A paragraph 1.2.

4.2. – Specific

Each manufactured Galley Cart, Containers and Associated Components must be permanently and legibly marked according to information provided in SAE AS 8056 paragraph 3.7

5 - Availability of Referenced Document

Refer to CS-ETSO Subpart A paragraph 3.

APPENDIX 1.

MPS FOR GALLEY CARTS, CONTAINERS and ASSOCIATED COMPONENTS

This ETSO's standards are set forth in the industry standard, SAE AS 8056, *Minimum Design and Performance of Airplane Galley In-Flight Carts, Containers, and Associated Components*, dated November 2004 modified as follows:

Modifications to SAE AS 8056

AS 8056 section:	Action:
3.2.1, Materials and Materials Control	TO DELETE "...or experience."
3.2.1.2, Materials	TO CHANGE ALL TO: "Each batch, roll or sheet of non-metallic materials or finished metal (including finishes or decorative surfaces applied to the materials) shall meet the applicable test criteria prescribed in 14 CFR part 25, Appendix F, parts I, IV, V and VI."
3.2.5, Interface Clearances	TO ADD AT END: "...and shall account for the equipment and aircraft tolerances."
3.3.5, Material Strength Properties and Material Variability	TO ADD after first paragraph: "The applicable specifications are Metallic Materials Process Development and Standardization (MMPDS, formerly MIL Handbook-5) and MIL Handbook-17."
3.5, Fire Properties	TO ADD new sub section after 3.5.2: "Flame Propagation: thermal /acoustic insulation material installed on the equipment shall meet the flame propagation requirements of 14 CFR § 25.856(a) when tested per Appendix F, part VI or other Agency approved equivalent test requirements. This requirement does not apply to "small parts" as defined in 14 CFR part 25, Appendix F part I."
3.6, Fire Containment	TO CHANGE 14 CFR 25.853 to 14 CFR § 25.853(h).
4.1, General	ADD after 1st paragraph: "ETSO Applicants are encouraged to validate finite element models based on critical testing when such an approach is taken to substantiate design changes to ensure compliance with 14 CFR § 25.307."
4.2, Structural	TO ADD between the 2nd and 3rd paragraph: "In order to maintain a maximum door deflection of 50 mm, the allowable retaining device envelope and the minimum retaining device engagement area shown in Figures 4 and 5 shall be developed by testing for both the primary and secondary retaining devices acting independently."

4.5, Fire Properties	TO ADD new subsection after 4.5.2, Flame Propagation: "Thermal/Acoustic insulation materials shall be demonstrated to comply with the flame propagation requirements of 3.5."
AS 8056 section:	Action:
4.6, Fire Containment	TO ADD between the 6th and 7th paragraph: "For air chilled carts, the test procedure step that reads <i>"Place the cart into the galley structure so that it is connected or attached to the chilled air distribution ducts with the designed airflow volume. Circulate air through the cart at the designated airflow rate"</i> may be substituted as follows: "Simulate the galley seal at the cart/galley interface and circulate air through one of the cart air openings at a flow rate of 30.7 l/s (+0 / - 4.72) (65 (+0, -10) cf/m) and ambient temperature of 22.22deg C (+5.55 / -5.55) (72 deg F (+10, -10)). It is acceptable to increase the airflow rate as necessary to meet a manufacturer's requirements."
5.1, Interface Control Drawing	TO ADD AT END: "For air-chilled carts, identify the flow rate of air (e.g., 47.2 l/s or 100 cf/m) circulated through the cart during the fire containment test."