



**AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL**

## **BRAZILIAN AIRWORTHINESS DIRECTIVE**

**AD No.: 2023-08-03R02**

**Effective Date: 10 May. 2024**

The following Brazilian Airworthiness Directive (AD), issued by the Agência Nacional de Aviação Civil (ANAC) in accordance with provisions of Chapter IV, Title III of Código Brasileiro de Aeronáutica - Law No. 7,565 dated 19 December 1986 - and Regulamento Brasileiro da Aviação Civil (RBAC) 39, applies to all aircraft registered in the Registro Aeronáutico Brasileiro. No person may operate an aircraft to which this AD applies, unless it has previously complied with the requirements established herein.

### **AD No. 2023-08-03R02 - (EMBRAER) / 39-1551.**

#### **APPLICABILITY:**

(a) This Airworthiness Directive (AD) applies to Embraer S.A. airplanes model EMB-545 and EMB-550 equipped with cockpit side window Left Hand (LH) side with Part Number (P/N) NP-200402-7 or cockpit side window Right Hand (RH) side with P/N NP-200402-8.

#### **CANCELLATION / REVISION:**

This AD cancels and supersedes the AD No. 2023-08-03R01 - EMBRAER/ 39-1535, dated November 02<sup>nd</sup>, 2023, and is being issued to clarify the corrective actions related to the finding of damages other than cracks.

#### **REASON:**

It has been found occurrences of premature cracks in the outer layer of windows with P/N NP200402-7 or P/N NP-200402-8 caused by interference due to manufacturing tolerances. These cracks, if undetected, may subject the inner layer to unpredicted loads for several flights, which may result in windows failure and subsequent in-flight depressurization events.

Since this condition may occur in other airplanes and affects flight safety, corrective action is required. Thus, sufficient reason exists to mandate compliance with this AD in the indicated time limit.

#### **REQUIRED ACTION:**

Inspection and replacement, as applicable, of the cockpit side window LH and RH of the airplane.

#### **COMPLIANCE:**

Required as indicated below, unless already accomplished.

**(b) Initial and repetitive inspection of the cockpit LH and RH side windows.**

**(1)** For airplanes identified in paragraph **(a)** of this AD, before the cockpit side window with P/N NP 200402-7 or P/N NP-200402-8 has accumulated 2,000 Flight Cycles (FC) or within the next 1,200 FC after November 02<sup>nd</sup>, 2023, the effective date of the AD 2023-08-03R01, whichever occurs later, perform a General Visual Inspection (GVI) at the cockpit side window to detect cracks, delamination or any other damage, according to the Task 56-12-00-200-802-A “Cockpit Side Window – Allowable limits”, revision 50 dated May 12th, 2023; as published on Aircraft Maintenance Manual AMM-5613, Part II (Maintenance Practices and Procedures-MPP), or further revisions of this task approved by ANAC.

**NOTE 1 :** Special attention is required to the outer ply area near the metallic retainer

**(i)** In case of delamination, scratch, erosion, or any damage other than cracks, follow the instructions provided in Task 56-12-00-200-802-A “Cockpit Side Window – Allowable limits”, revision 50 dated May 12th, 2023; as published on Aircraft Maintenance Manual AMM-5613, Part II (Maintenance Practices and Procedures-MPP), or further revisions of this task approved by ANAC

**(ii)** In case of any crack in the outer layer is detected, before the next flight, replace the damaged window with a modified one with a new P/N NP-200402-9 or P/N NP-200402-10, as applicable.

**(iii)** In case of no crack, delamination, or any other damage, no action is required at this time.

**NOTE 2:** For the purposes of this AD, a General Visual Inspection (GVI) is defined as follows.

**General Visual Inspection (GVI):** A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as day light, hangar lighting, flashlight or drop-light and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked.

**(2)** Repeat the required inspections of paragraph (b)(1) of this AD at each 2,000 FC.

**(c) Prohibition of new installations.**

After the effective date of this AD it is forbidden to install side windows on the airplane with P/N NP-200402-7, and P/N NP-200402-8.

**(d) Alternative methods of compliance (AMOCs).**

A different method or a different compliance time, with the requirements of this AD, may be used if approved by the Manager of the Continuing Airworthiness Technical Branch (GTAC) of ANAC.

**(e) Service information.**

You must use the Task 56-12-00-200-802-A “Cockpit Side Window – Allowable limits”, revision 50, dated May 12th, 2023, as published on Aircraft Maintenance Manual AMM-5613, Part II (Maintenance Practices and Procedures-MPP), or further revisions of this task approved by ANAC; to do the actions required by this AD, unless this AD specifies otherwise.

Record compliance with this AD in the applicable maintenance log book.

**CONTACT:**

For additional technical information, contact:

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**APPROVAL:**

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**NOTE:** Original in Portuguese language signed and available in the files of the Continuing Airworthiness Technical Branch (GTAC) of the National Civil Aviation Agency (ANAC).

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**Referência:** Processo nº 00066.027056/2019-65

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