ARGOSY INTERNATIONAL
DELIVERING PERFORMANCE

CAERI Side Impact Moving Deformable Barrier AC-MDB

Description

Based on Aluminum Honeycomb technology, the AC-MDB barrier (Side Impact Moving Deformable Barrier) is a new development barrier to be used in the C-IASI 2023 side impact crashworthiness evaluations.

AC-MDB barrier is designed by China Automotive Engineering Research Institute Co., LTD., developed jointly with Argosy XAC Composite Materials LTD., and produced by Argosy XAC Composite Materials LTD., which is suitable for China's road conditions.

Technical Properties

The AC-MDB barrier consists of two parts: a Main Honeycomb Block and a Bumper Honeycomb Block. The Main Honeycomb Block comprises Six elements: two Upper, two Lower Side, and two Middle Bottom. The Bumper Honeycomb Block comprises three elements: one Middle and two Sides.

Upper Element Honeycomb Block 1-1 Material
Aluminum 3003 - cell size 3/4" Crush strength of 50 KPa

Upper Element Honeycomb Block 1-2 Material
Aluminum 3003 - cell size 1" Crush strength of 90 KPa

Lower Side Element Honeycomb Block 2 & 4 Material
Aluminum 3003 - cell size 3/8" Crush strength of 850 KPa

Lower Middle Bottom Element Honeycomb Block 3-1 Material
Aluminum 3003 - cell size 1" Crush strength of 90 KPa

Lower Middle Bottom Element Honeycomb Block 3-2 Material
Aluminum 3003 - cell size 3/8" Crush strength of 650 KPa

Bumper Middle & Bumper Side Element Honeycomb Block 5 Material
Aluminum 3003 - cell size 3/4" Crush strength of 320 KPa

Back plate Element - Aluminum 5052 H32/H34, T1.5mm

Middle plate Element - Aluminum 5052 H32/H34, T=0.5mm

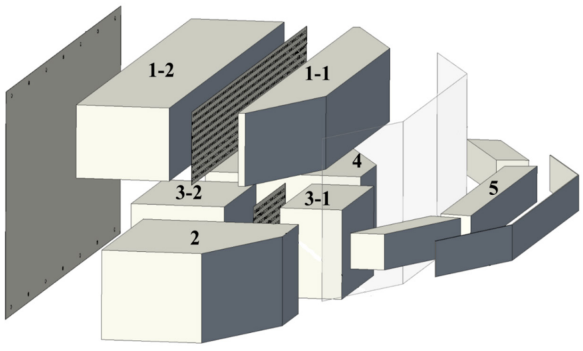
Front Plate Element - Aluminum 5052 H32/H34, T=0.7mm

Bumper Plate Element - Aluminum 5052 H22/H34, T=3.0mm

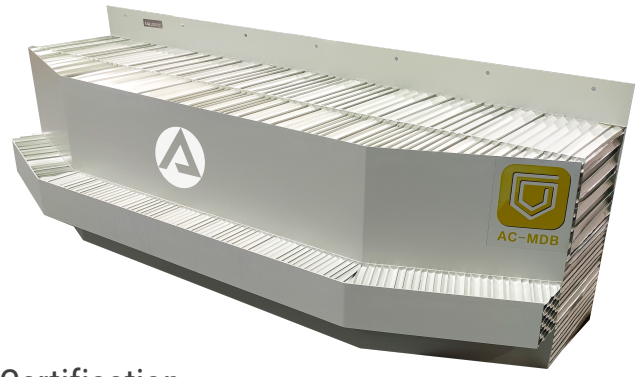
Adhesive
Two-part Polyurethane

A complete testing procedure for certification of aluminum honeycomb is performed in-house according to C-IASI 2023 Side Impact Crashworthiness Evaluation, Moving Deformable Barrier Specification and in accordance with the procedure defined by China Automotive Engineering Research Institute Co., LTD.

The aluminum honeycomb blocks are processed such that the force deflection-curve when statically crushed is within the corridors defined for each block.



Explosive View

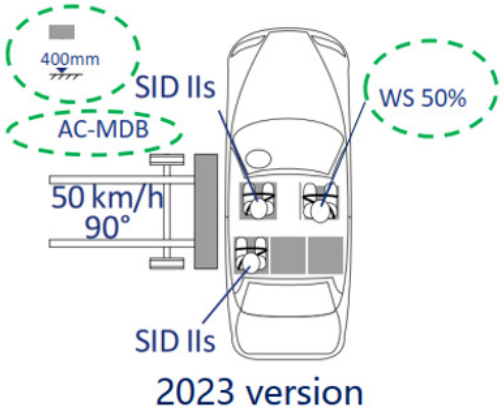


Certification

The AC-MDB CAERI barrier is developed for the C-IASI 2023 Side Impact Crashworthiness Evaluation Crash Test Protocol - 2023.

Technical Specification

The AXAC AC-MDB CAERI side impact Moving deformable barrier are manufactured according to China Automotive Engineering Research Institute Co., LTD. Moving Deformable Barrier Specification, in compliance with the C-IASI 2023 Side Impact Crashworthiness Evaluation Crash Test Protocol - 2023.



Quality

AXAC has an approved IS09001-2015 Quality Management System, which demonstrates a commitment to supplying customers with the highest quality products and services.

Delivery

+ Individual cardboard crate
+ Anti-reflective paint as standard
  - Light gray anti-reflective paint as standard
  - Blue anti-reflective paint or customized painting available

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AC-MDB
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Approved by: Ryan Flugel