ARGOSY INTERNATIONAL
DELIVERING PERFORMANCE

IIHS Side Impact Moving Deformable Barrier MDB-IIHS V1

Description

Based on Aluminum Honeycomb technology, the MDB-IIHS V1 barrier (Side Impact Moving Deformable Barrier – IIHS Oct. 2007) is providing a precision measurement tool to ensure repetitive and correlative results under similar test conditions and to reflect adequately the protective performance of a motor vehicle or item of motor vehicle equipment with respect to human occupants.

The side-impact test consists of a stationary test vehicle struck on the driver side by a crash cart fitted with an IIHS deformable barrier element. The 1,500 kg moving deformable barrier (MDB) has an impact velocity of 50 km/h (31.1 mi/h) and strikes the vehicle on the driver side at a 90-degree angle.

Technical Properties

The MDB-IIHS V1 barrier consists of two parts: a main honeycomb block and a bumper consisting of three honeycomb elements. Both honeycomb layers are covered with aluminum sheets and adhesively bonded to each other.

Main Honeycomb Block Material - Aluminum 5052- cell size 9.5 mm
Crush strength of 310 kPa ± 17 kPa

Bumper Element Honeycomb Material - Aluminum 3003- cell size 6.35 mm
Crush strength of 1690 kPa ± 103 kPa

Main Honeycomb Base Plate - aluminum 5251 H22 or 5052 H34
H860 mm x W1676 mm x T1.0 mm

Main Honeycomb Top Cladding - Aluminum 5251 H24 or 5052 H34
T0.7 mm
Cut and bent to attain a folded shape that matches the top and front surfaces of the main honeycomb block

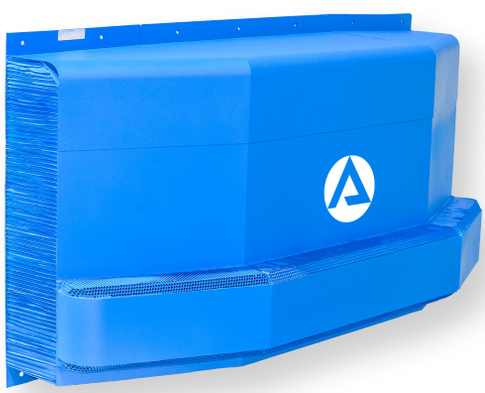
Main Honeycomb Upper Corner Plate - Aluminum 5251 H24 or 5052 H34
T1.6 mm
Cut and bent to attain the contoured shape

Bumper Element Base Plate - Aluminum 5251 H22 or 5052 H34
H203 mm x T3.0 mm
Bent to match the final shape of the front surface of the main honeycomb cladding sheet

Bumper Element Profile Sheet – Aluminum 5251 H22 or 5052 H34
H159 mm x T3.0 mm

Adhesive
Two-part Polyurethane

A complete testing procedure for certification of aluminum honeycomb is performed in-house according to IIHS Side Impact Crashworthiness Evaluation, Moving Deformable Barrier Specification from October 2007 and in accordance with the procedure defined in NHTSA TP-214D. The aluminum honeycomb blocks are processed such that the force deflection-curve when statically crushed is within the corridors defined for each of the 2 blocks.

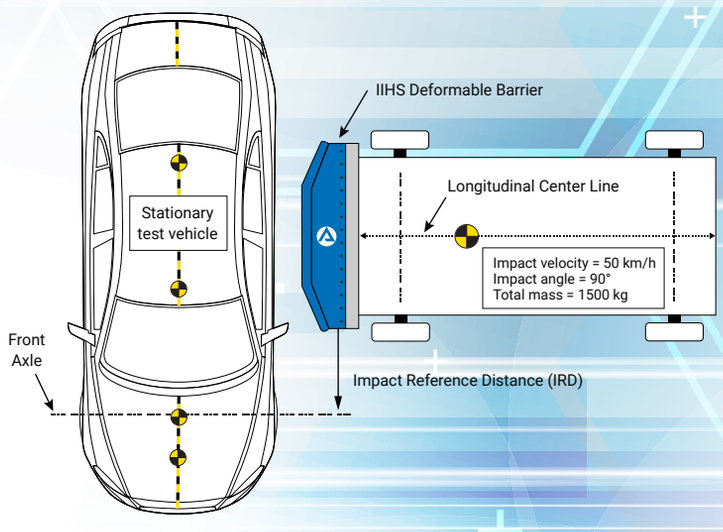


Certification

The MDB-IIHS V1 barrier is certified for IIHS Side Impact Crashworthiness Evaluation Crash Test Protocol (Version X).

Technical Specification

The AXAC MDB-IIHS V1 side impact Moving deformable barrier are manufactured according to Insurance Institute for Highway Safety Moving Deformable Barrier Specification, October 2007 in compliance with Side Impact Crashworthiness Evaluation Crash Test Protocol (Version X), July 2017.



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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