

## Description

Based on Aluminum Honeycomb technology, the MDB-IIHS V2 barrier (Side Impact Moving Deformable Barrier – IIHS May 2020) is an updated version of the moving deformable barrier to be used in the Insurance Institute for Highway Safety (IIHS) side impact crashworthiness evaluations 2.0 planned being introduced by 2022.

The MBD-IIHS V2 provides a measurement tool with sufficient precision to ensure repetitive and correlative results under similar test conditions and reflect adequately the protective performance of a motor vehicle or item of motor vehicle equipment with respect to human occupants. The new barrier provides a better representation of Pick-up and SUVs front design based on updated data.

## Technical Properties

The MDB-IIHS V2 barrier consists of two parts: a Main Honeycomb Block and a Bumper Honeycomb Block. The Main Honeycomb Block comprises four elements: one Upper, two Rails, and one Middle Bottom. The Bumper Honeycomb Block comprises three elements: one Middle and two Sides.

**Upper Element Honeycomb Block Material - Aluminum 3003 - cell size 25.4 mm**  
Crush strength of  $140 \pm 16$  kPa

**Rail Element Honeycomb Block Material - Aluminum 3003 - cell size 9.5 mm**  
Crush strength of  $1100 \pm 88$  kPa

**Middle Bottom Element Honeycomb Block Material - Aluminum 3003 - cell size 19.1 mm**  
Crush strength of  $325 \pm 26$  kPa

**Bumper Middle & Bumper Side Element Honeycomb Block Material - Aluminum 3003 - cell size 19.1 mm**  
Crush strength of  $325 \pm 26$  kPa

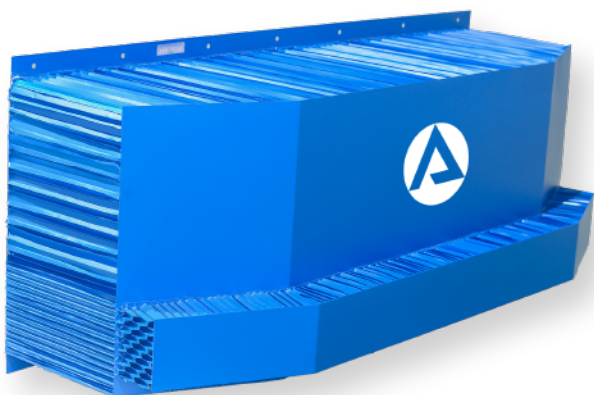
**Base Plate Element - Aluminum 5251 H22 or 5052 H32**  
T0.8 mm

**Top Cladding Plate Element - Aluminum 5251 H24 or 5052 H32**  
T0.7 mm

**Bumper Cladding Element - Aluminum 5251 H22 or 5052 H32**  
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 2.0, Moving Deformable Barrier Specification, version 2.0 from May 2020 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 block.



# IIHS Side Impact Moving Deformable Barrier MDB-IIHS V2

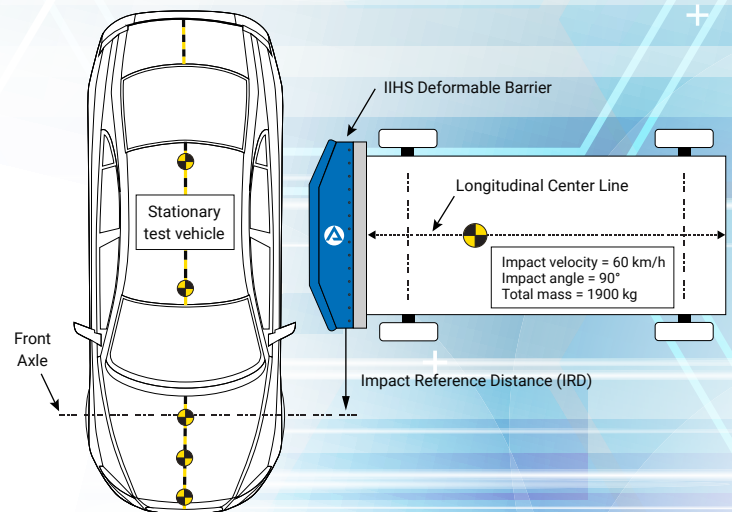


## Certification

The MDB-IIHS V2 barrier is developed for the IIHS Side Impact Crashworthiness Evaluation Crash Test Protocol 2.0 - 2022.

## Technical Specification

The AXAC MDB-IIHS V2 side impact Moving deformable barrier are manufactured according to Insurance Institute for Highway Safety Moving Deformable Barrier Specification, version 2.0, May 2020 in compliance with the Side Impact Crashworthiness Evaluation Crash Test Protocol 2.0 - 2022.



## Quality

AXAC has an approved ISO9001-2015 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