



Description

The 50% Overlap Suitable for China Mobile Progressive Deformable Barrier (SC-MPDB) is used for frontal impact crashworthiness evaluations in C-NCAP 2027.

Technical Properties

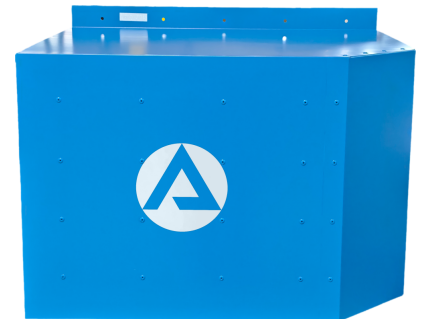
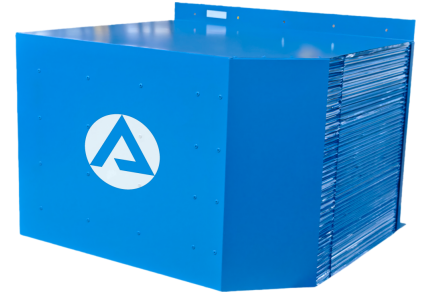
The impact barrier consists of four aluminum honeycomb blocks covered by cladding and a cover plate. Blocks 1 and 4 have constant impact deformation forces, while blocks 2 and 3 exhibit progressive forces as deformation increases.

Overall Dimensions:

Total width of 1,000 mm (± 2.5 mm) and a total height of 670 mm (± 2.5 mm)

Honeycomb Block Depths & Materials:

- Block 1: 300 mm ± 2.5 mm depth, cell size 9 mm $\pm 10\%$
- Block 2: 500 mm ± 2.5 mm depth, cell size 10 mm $\pm 10\%$
- Block 3: 500 mm ± 2.5 mm depth, cell size 6 mm $\pm 10\%$
- Block 4: 50 mm ± 2.5 mm depth, cell size 6 mm $\pm 10\%$
- Honeycomb Material: 3003 aluminum for all blocks
- Back Plate: AlMg2 to AlMg3 series aluminum, 3.0 mm ± 0.2 mm thickness, 50-67 HBS hardness
- Contact Plate: 1050A H24 aluminum, 1.5 mm ± 0.1 mm thickness
- Partition Plate: 5754 H111 aluminum, 0.5 mm ± 0.06 mm thickness
- Cladding & Cover Plate: 5754 H22 aluminum, 0.8 mm ± 0.1 mm thickness
- Adhesive: Two-component polyurethane adhesive, applied with a maximum film thickness of 0.5 mm
- Rivets: 6 mm diameter hollow aluminum or steel rivets



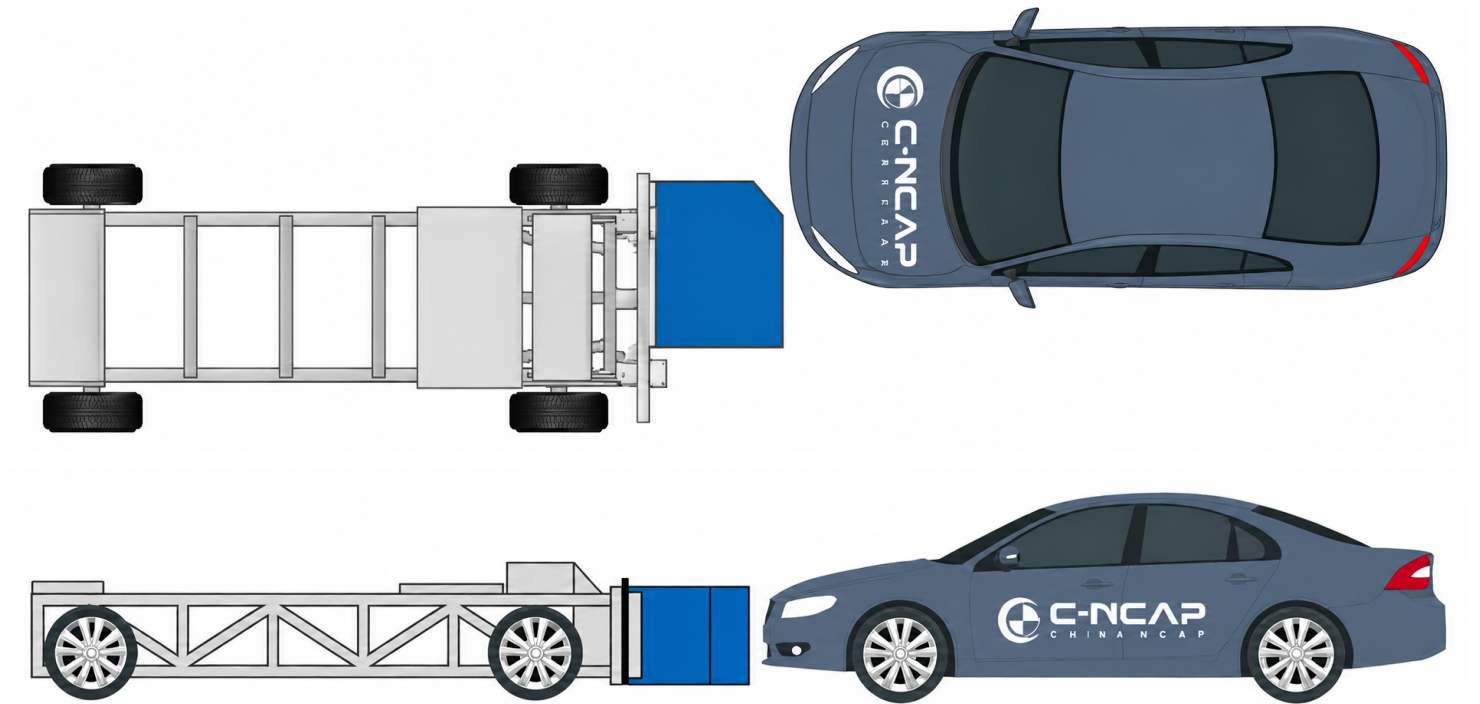
Certification

Designed in accordance with the C-NCAP 2027 (TR01 50% OVERLAP MPDB TECHNICAL REQUIREMENTS). The static crush strength for every honeycomb block conforms to the specific corridors mandated by the test protocol.

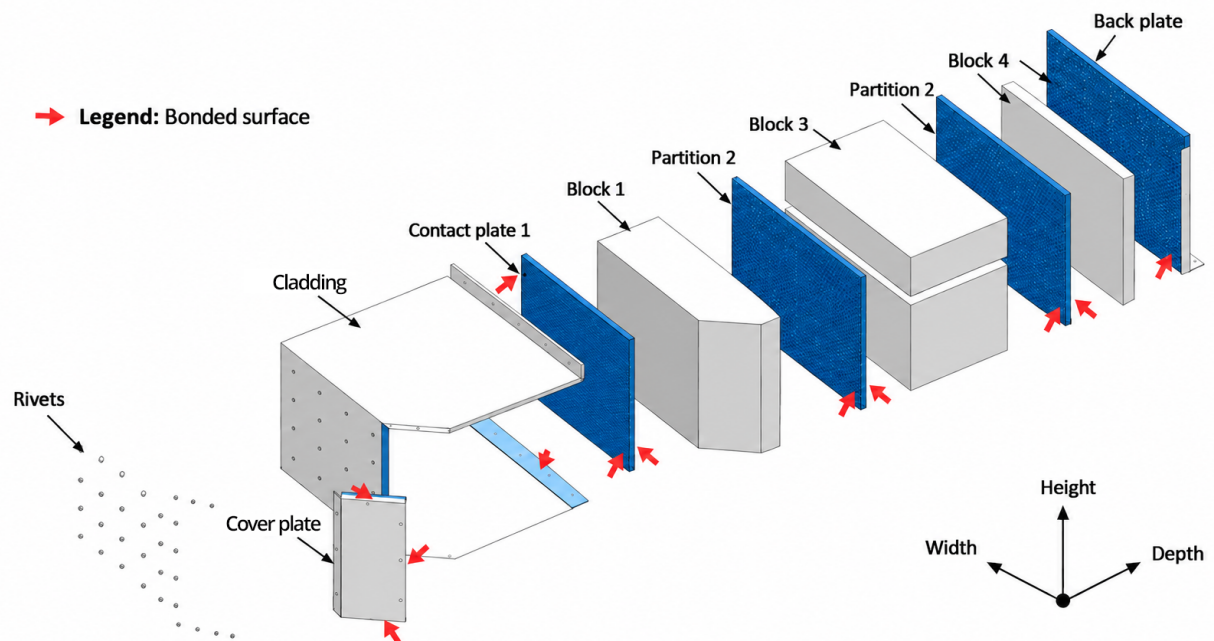
Quality & Production

Manufactured under an ISO 9001:2015 certified Quality Management System to consistently meet product specifications and customer requirements.

Test Configuration



SC-MPDB Exploded View



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