

Assessment of vehicle security barrier according to ISO 22343-1:2023

VTI has performed a crash test and evaluated the vehicle security barrier called "Benders SAFE 4M". The test was ordered by Benders Sverige AB and was carried out on 2026-09-21 at VTI in Linköping, Sweden. VTI's test reference is 2026-09-21-1.

Tested item

- Product name: SAFE 4M
- Product description: Reinforced concrete block. A 20mm thick rubber mat was attached to the bottom surface of the product. The concrete block weighed 7850 kg, excluding the rubber mat and wooden seating. The dimensions of the concrete block were 4005 x 670 x 920 mm (length x height x width) when measured at the base.

Test data:

Vehicle model: MAN TGL 8.180
Vehicle weight at test: 7180 kg
Actual impact speed: 64.9 km/h
Actual impact angle: 90°

Test requirements:

Type N2A
7200 ±150 kg
64 +3 / -1 km/h
90±2°

Test results



Complete test results are reported in VTI Test report 57042.

Vehicle was immobilized:	Yes
Vehicle static penetration distance:	7.30 m
Vehicle dynamic penetration distance:	7.38 m
Major debris (>2kg), max. distance:	10.10 m
Impact energy:	1167 kJ
Performance rating:	ISO 22343-1 Wall V/7200[N2A]/64/90:7.4/10.1

2026-09-25

2026-09-25

X *Mattias Åkerlund*

Mattias Åkerlund
Project Manager
Signerat av: Mattias Åkerlund

X *Håkan Carlsson*

Håkan Carlsson
Laboratory Manager
Signerat av: Håkan Carlsson