

Report No. TR-23-012, TR-23-013, TR-23-014 and T-23-015
Date: 2023-05-11
Place: Troax Test Center



TEST MATERIAL

Shelf 1100x890, 300kg/m²
Shelf 1100x890, 500kg/m²
Shelf 1100x890, 800kg/m²
Shelf 1100x890, 1000kg/m²

PURPOSE

To document the strength and quality of our drop over mesh shelves using a static load test. The test will identify the failure point and deflection.

TEST PROCEDURE

The test was conducted in accordance with ANSI MH26 testing standards with a distributed static load applied downwards on the shelf increasing at even increments.

The force is applied evenly at two points distanced by half the total span between the two folds on the shelf.

Each load test was conducted on identical shelves giving an average deflection value. The deflection value was obtained from four measuring points spread equally across the centre of the shelf giving an average reading.

RESULTS

Despite the multitude of tests all the welds within the mesh shelves retain their properties. The shelves did not reach their plastic limit and upon removing the load the shelves returned to their original position.

The total deflection of the shelves was:

300Kg/m² - 7,0 mm
500Kg/m² - 9,9 mm
800Kg/m² - 10,0 mm
1000Kg/m² - 10,5 mm

All shelves are in line with the European general requirements, with a maximum deflection of 1:100 and with safety factor 1.3.



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