

Manufacturer's certificate

Technical Report

Impact resistance

Re: Fatigue test in compression related to the resistance to the impact on a fender made of Ethylene-vinyl acetate polymer, model ref. B.100 E.V.A. Bumper, fixed on a wood table with bolt 8x80mm and washers

Test realized with a hydraulic press of 40 tons and a flat stainless steel punch plate 55*22 cm.



photo 01

Test method:

The fender have been submitted to progressive loads up to 3.500 kg

- 1) The press has begun a first compression of 500 kg / 5 KNw and the punch in the fender is penetrated for 2 centimeters, making to compress only the first leaning hump.
- 2) the next pressure of 1.000 kg / 9,80 KNw has begun the deformation of the fender and the punch has begun to penetrate the fender for 4 cm (photo 02)





Photo 02

- 3) the pressure has been increased to 2.500 kg / 24,51 KNw and the punch has penetrate the fender for 6 cm (photo 03)



photo 03

- 4) the pressure has been increased to 3500 kg / 34,32 KNw and the punch has penetrate the fender for 8 (photo 04)



photo 04

5) Then the test will be repeated using a bigger surface of impact, wood table 22 * 75 cm the pressure has been to 3500 kg / 34,32 KNw and the punch has penetrate the fender for 7 cm. (Photo 05)





photo 05

Results:

the tests have daily been repeated for a week.

After these tests of compression, the fenders have not suffered perennial deformations, there have been no cuts or yieldings or tears.

the fender after an initial phase of light deformation, it returns to his initial form.

Also the points of fixing have not introduced breakups after the perpendicular tests of compression. (Photo 06)



photo 06

This E.V.A. Bumper ref. B.100 have reached and excellently passed the compressions resistance of 34,32 KNw without introducing any type of yielding.

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