



Item number 12.10.250 – 12.10.255

New items were tested in order to understand their pull-out strength in different types of materials. The test is performed on item 12.10.255 and is also representative of 12.10.250 due to the same outer geometry.

Hole diameter [mm]	see notes in appendix section
Test materials	Low-Medium density particle board/ High Pressure Laminate HPL / Solid wood
Test tool	Lifter, Round head screw 8.8, heavy washer

TEST LAYOUT





- high quality furniture fittings

12.10.255
Internal Pull out test

Internal Test

24/06/16

2/4

TEST MATERIALS



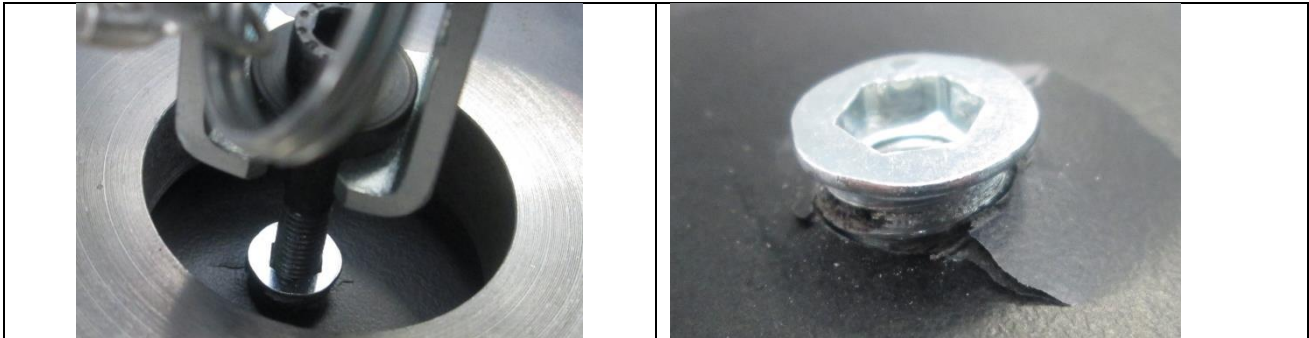
LOW/MEDIUM DENSITY PARTICLE BOARD



Sample	Results
12.10.255	37,7 kg 37,3 kg

HIGH PRESSURE LAMINATE (HPL) – Not calibrated hole

Test Results



Sample	Results
12.10.255	100,6 kg 117,6 kg

HIGH PRESSURE LAMINATE (HPL) – Best calibrated hole

Test Results



Sample	Results
12.10.255	141,8 kg

SOLID WOOD



Sample	Results
12.10.255	136,3 kg 141,8 kg

Appendix:

Holes were realized at standard 9,3-9,5mm.

After first test the conclusion is that low density material needs a different value: 8,9mm. High density material like HPL and solid wood on the contrary give the best results with calibrated holes near 9,2mm.

Conclusion:

This new item has the capability to be inserted even in small panels; anyway the results are strictly connected to the density of the material.

The external thread has in fact a special pitch which help to secure it inside the panel, but with low density material fibers can be broken and pull out value is in the range of 30-40 kg. After the initial force application, the sample slightly retracts out of the hole because material fibers are too soft to contain it. Higher performance can be achieved using medium-high density panels where 100-140 kg can be assured.