CLAIMS

1. Method for the production of artificial wood board without the addition of a binder, wherein the method comprises the following steps;

a) milling of lignin containing plant material to obtain a milled mixture, wherein said lignin containing plant material comprises coconut husk pith;

b) conditioning of said milled mixture to obtain an equilibrium moisture content of between 16% to 25%;

c) homogenising of said conditioned milled mixture;

d) cold-pressing of the homogenous mixture obtained in step c to obtain a brittle board;

e) hot-pressing of said brittle board to reach a density of between 1.2 to 1.4 g/cm3 to obtain an artificial wood board.

2. Method according to claim 1, wherein said lignin containing plant material comprises particles with a particle size of less than 5 mm, preferably less than 2.5 mm, more preferably less than 2 mm.

3. Method according to any of claim 1 to 2, wherein said equilibrium moisture content is adjusted by the addition of water to said milled mixture to obtain said equilibrium moisture content.

4. Method according to any of claim 1 to 3, wherein step e is followed by conditioning said artificial wood board under static pressure for at least 24 hours to obtain a form-stable artificial wood board.

5. Method according to any of claim 1 to 4, wherein in step d said homogenous mixture is cold pressed to obtain a brittle board with a thickness of at least 1:3, preferably at least 1:4, more preferably at least 1:5, most preferably at least 1:6, when compared to the thickness of the material before cold pressing.

6. Method according to any of the claims 1 to 5, wherein step e is performed in total in 1 to 4 minutes per 1 mm layer thickness of said brittle board, preferably 1 to 3 minutes per 1 mm layer thickness of said brittle board, more preferably 1.5 to 2 minutes per 1 mm layer thickness of said brittle board.

7. Method according to any of the claims 1 to 6, wherein step e is performed at a temperature of between 140 ºC to 220 ºC, preferably 150 ºC to 200 ºC, more preferably 160ºC to 180 ºC and wherein step e is performed at a pressure of 120 to 170 bars, preferably 130 to 160 bars, most preferably 140 to 150 bars..

8. Method according to any of the claims 1 to 7, wherein said conditioned milled mixture obtained in step b is mixed with other wood like materials and/or additives and/or polymers and/or cement-based compositions.

9. Artificial wood board obtainable by a method according to any of the claims 1 to 8, wherein said artificial wood board has a moisture content of between 16% to 25% and comprises at least 25% to 50% v/v of coir dust.

10. Artificial wood board according to claim 9, wherein said artificial wood board has a bending strength of at least 46 N/mm2, preferably at least 47 N/mm2.

11. Artificial wood board according to claim 9 or 10, wherein said artificial wood board has a thickness swelling of at most 13%, preferably at most 12%, more preferably at most 10%, most preferably at most 9% due to moist absorption after immersion in a aqueous solution for 24 hours according to European Standard EN 317.

12. Artificial wood board according to any of claim 9 to 11, wherein said artificial wood board has an internal bond strength of at least 1.8 N/mm2, preferably at least 2.2 N/mm2, more preferably at least 2.5 N/mm2.

13. Artificial wood board according to any of claim 9 to 12, wherein said artificial wood board comprises a composition comprising lignin containing plant material mixed with other wood like materials and/or additives and/or polymers and/or cement-based compositions.