



**Technological & Educational Institution (TEI) of Larissa
Dept. of Wood & Furniture Design and Technology**

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TO: NTL Chemical Consulting
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CC: Research Committee, TEI of Larissa
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***BRIEF REPORT – PERFORATION TESTS ON FOUR
PARTICLEBOARD SAMPLES***

This report was conducted through cooperation project [REDACTED], signed between R&D company NTL Chemical Consulting and TEI of Larissa (responsible: Prof. George Mantanis)

Four (4) particleboard samples, well wrapped, were delivered by NTL on 19.4.2011 in the Lab of Wood Technology in order to measure *formaldehyde contents*, based upon the EN-120 (called *Perforator method*). The samples were originated by a [REDACTED] particleboard plant.

The tests were carried on our labs, by Dr. Ch. Lykidis and supervised by Prof. G. Mantanis, on Friday 6.5.2011. The samples, as named UFSTE1, MUFSTE1, UFSTE2 and MUFSTE2 by NTL, were tested according to the standard EN-120, and the following results were obtained:

	UFST E1	UFST E2	MUFST E1	MUFST E2
<i>Samples moisture content (%)</i>	9.83%	9.69%	10.55%	11.84%
<i>FF (6.5%) (mg/100g)</i>	7.11	17.20	6.78	28.53

Final conclusions

- ✚ The particleboard (PB) samples, namely *UFST E1* and *MUFST E1* showed to belong to class E1, having FF, free formaldehyde contents lower than 8 mg/100g; consequently fulfilling the requirements of the European norms, and belong to **E1 class**.
- ✚ The other two PB samples tested belong clearly to **E2 class**.

Note: The above-listed results are valid only for the tested materials, as those delivered to TEI on 19.4.2011.

We suggest: Re-test and second control of the said PB samples because their FF values are rather close to the limits of E1 class.

Noticeably, all 4 samples (board samples delivered) appeared to have rather *high moisture contents*; therefore, such samples we advise to be sent for testing after only sufficient air drying at the normal conditions (e.g., 20° Celsius, 65% relative humidity), so as to have moisture contents between 7-8%.

We verify this herein

The Head of *Wood Technology Laboratory*

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