FRAUNHOFER INSTITUTE FOR WOOD RESEARCH, WILHELM-KLAUDITZ-INSTITUT WKI

E1 CERTIFICATION

Supervision of unfaced and faced particleboards, fiberboards and plywood according to the “Richtlinie über die Klassifizierung und Überwachung von Holzwerkstoffplatten bezüglich der Formaldehydabgabe (DIBt guideline 100)” in the version of June 1994 of the ChemikalienVerbotsVerordnung (ChemVerbotsV) appendix § 1, part 3, in connection with the federal health paper “Bundesgesundheitsblatt” from October 1991.

Wood-based panels for use in construction applies to the formaldehyde emission classes according to EN 13986 appendix B.

Inspections

Once a production plant passed the requirements of the classification test, periodical supervision is necessary to confirm and report the accordance of the requirements of the above mentioned guideline. For this the review of all quality ensuring methods is necessary.

Frequency and procedure

These inspections will occur twice a year. Cooperation by the producer in all aspects of this inspection is necessary, including:

- Reviewing quality control test records
- Reviewing quality control manual
- Selection of sample panels for emission testing according to existing contract
- Inspection of quality control test method regarding formaldehyde
- Testing of qualified quality control employees

Plant qualification

Main topics:
- Acceptable quality control facilities and personnel (e.g. quality control manual)
- Establishing a quality control test method and facilities (factory production control FPC) including data record
- Classification test (to confirm adherence to the reference method)
Establishing quality control facilities and personnel

- Equipment and facilities shall be calibrated in accordance with the quality control manual
- Equipment calibration records shall be maintained

Establishing a quality control test method for factory production control

The following test methods are permitted for tests under the producer’s own laboratory for factory production control:

**Reference method**
- Chamber method EN 717-1

**Derived test methods**
- Perforator method EN 120
- Gas analysis method EN 717-2
- Flask method EN 717-3*

* (if an adequate correlation to the reference method is confirmed

Classification test

The material must fulfil the requirements of “Richtlinie über die Klassifizierung und Überwachung von Holzwerkstoffplatten bezüglich der Formaldehydabgabe (DIBt-Richtlinie 100)”, the limit values are represented in table 1.

According to clause 3 “Classification” of DIBt-Guideline 100 in connection with the federal health paper “Bundesgesundheitsblatt” 34, 10 (1991) p. 488-489 the following mentioned methods are required for the classification of wood-based panels:

- for unfaced particle- and fibreboard classification take place through perforator values specified in EN 120, in addition to the reference method in a chamber. In case of unfaced plywood and faced particleboard classification take place through the gas analysis method according to EN 717-2.

Variant of the above mentioned test methods of classification the wood-based panels, other test methods may applied in accordance with clause 4.6 “Correlation of test methods”. For this tests are required to establish a factor to convert the value (correlation to the reference method).

It is at the manufacturer’s discretion to distinguish the following thickness ranges for the definition of test and assessment groups:

- up to 12 mm,
- more than 12 mm up to 25 mm,
- more than 25 mm up to 40 mm,
- more than 40 mm up to 60 mm,
- more than 60 mm.