CARB CERTIFICATION

Supervision of uncoated particleboards, fibreboards and plywood according to the Final Regulation Order of “Airborne Toxic Control Measure to Reduce Formaldehyde Emission from Composite Wood Products”, 93120-93120.12, title 17, California Code of Regulations, § 93120 in relation to requirements of § 93120.2 (a) “Formaldehyde Emission Standards for Hardwood Plywood (HWPW), Particleboard (PB), and Medium Density Fiberboard (MDF)” – table 1.

- Qualifying test (to confirm adherence to CARB regulation)
- Establishing a correlation for FPC method and large chamber ASTM E 1333 or ASTM D 6007

Inspections

After a plant has qualified for certification, periodic on-site inspections to ensure full compliance with the provisions of the requirements of standard and the plant’s quality control manual become necessary.

Plant qualification

Main topics:
- Quality control manual
- Acceptable quality control facilities and personnel
- Establishing a small scale quality control test method (FPC)
Frequency and procedure

These inspections will occur quarterly. Cooperation by the producer in all aspects of his inspection is necessary, including:

- Reviewing formaldehyde emission quality control records
- Reviewing the quality control manual and keep it actual
- Selection of sample panels for emission testing according to existing contracts
- Reviewing production records for press times and urea-formaldehyde resin usage
- Examining in-process formaldehyde emission quality control procedures as deemed necessary
- Testing of qualified quality control employees (conducting witness or Round Robin Tests)

Quality control manual

Main topics of content:

- Organizational structure of the quality control department e.g. using an orga-nigram
- Sampling procedures
- Method of handling samples
- Frequency of quality control small scale testing
- Procedures to identify changes in formaldehyde emissions resulting from production changes (e.g. increase in percentage of resin, an increase in formaldehyde/urea molar ratios in the resin or decrease in press time)
- Provisions for additional testing
- Record keeping requirements and information of manufacturing process (average percentage of resin, press time for each product type and thickness)
- Procedure of handling non complying material

Quality control facilities and personnel

- Equipment shall be calibrated in accordance with the equipment manu-facturers’ instructions
- Equipment calibration records shall be maintained
- Training of employees regularly

Establishing a small scale factory production control test method

The following small scale tests are approved for factory production control testing (FPC) as long as a correlation to ASTM E 1333 has been established:

- European test methods
  - Perforator-method EN 120
  - Gasanalysis-method EN 717-2
- Other (foreign) test methods
  - ASTM D 6007, ASTM D 5582
  - JIS A 1460

Qualifying test

The tested material has to apply to the Final Regulation Order of “Airborne Toxic Control Measure to Reduce Formaldehyde Emission from Composite Wood Products”, 93120-93120.12, title 17, California Code of Regulations, § 93120 in relation to requirements of § 93120.2 (a) “Formal-dehyde Emission Standards for Hardwood Plywood (HWPW), Particleboard (PB), and Medium Density Fiberboard (MDF)” – limit values as mentioned in table 1 of the regulation.

Correlation

Other test methods must be shown to correlate in a statistically significant way to ASTM E 1333 and such correlation requires a statistically significant sample size.

- Establish a correlation for FPC method and American chamber test
- Calculation of Quality Control Limit value (QCL)
- Samples have to be tested by using an approved small scale quality control method used by the manufacturers’ lab