

Evaluation Report
On
Commercial Wooden Engineered
Flooring Material

Prepared By: Materials and Manufacturing Technology Division

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1. Objective

To evaluate the performance of a commercial wooden engineered flooring material supplied by a client with respect to odor abatement.

2. Scope of Evaluation

Two sets of commercial wooden engineered flooring material were fabricated into an open-box as shown in below photo:



The submitted samples, each having size of L 21cm x W 22 cm x H 23 cm, were identified as:

1. Brand Name : Ionwood Model Name: Merbau Classic
2. Benchmark with unknown brand and model information

The performance aspect being evaluated was the ability to abate odor coming from cigarette smoke.

3. Testing Method

All the testing methods used in this report were in-house methods and conducted inside HKPC premise.

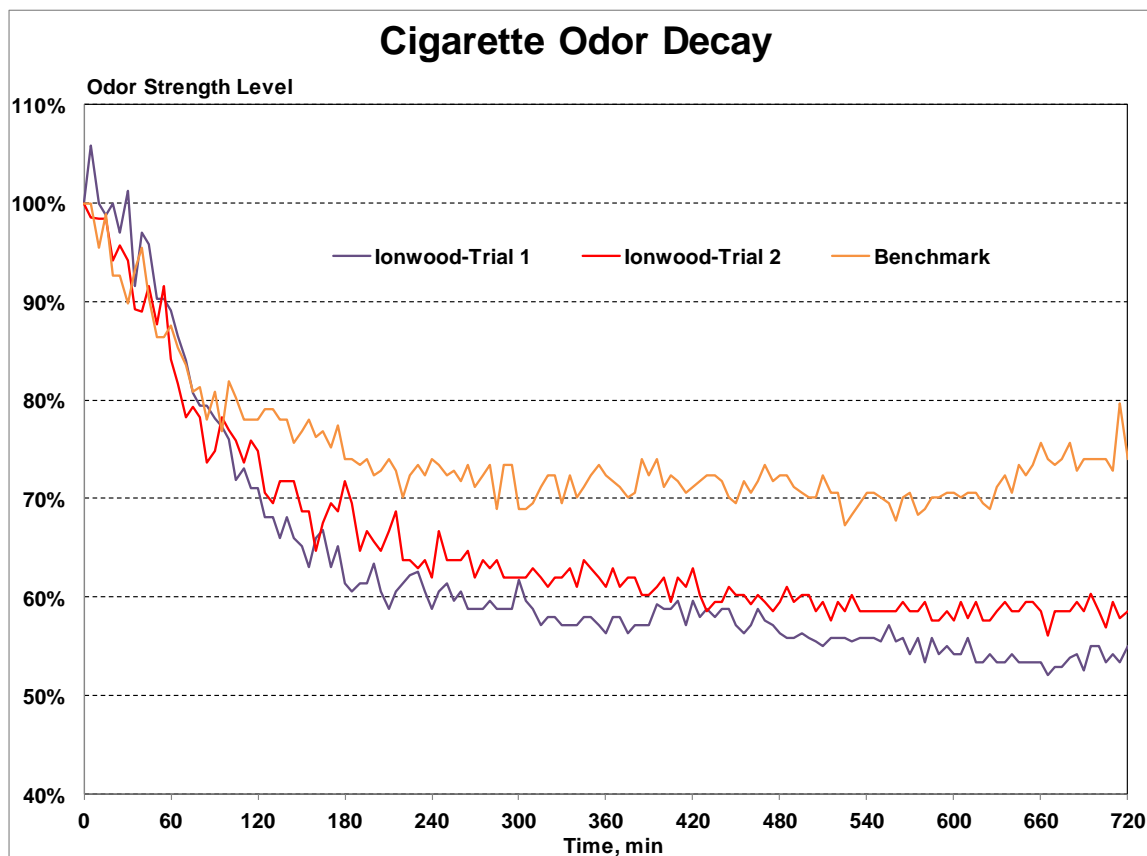
Instrument Used: Shinyei OMX-ADM Handheld Odor Meter (resolution: 1 Odor Strength Level, OSL)

Testing Procedure:

1. A watch glass with 10g of water was put into the sample box, and it was then covered tightly by an acrylic plate with two holes on it;
2. A cigarette was inserted into one of the holes on the acrylic plate and the smoke was then introduced into the box by suctioning the internal air through a tubing attached to the other hole using a small vacuum pump for 15 seconds;
3. The air suction tube and the cigarette were pulled out and the whole set-up was then left for stabilization for 30 min;
4. The odor meter was inserted into one of the holes and started to log the measurement data every 5 min for a total duration of 12 hours.

4. Results

The odor strength level of each measured data was presented as a percentage value relative to that of Time at 0 min, of which being 100%. Below figure shows the decay of cigarette odor strength level (OSL) against elapsed time for the two tested sample boxes:



Environmental Conditions: Temp: 18-24°C Humidity: 60-75 RH%

For Ionwood sample, the overall odor reduction percentage of the two trials in 12 hours measurement period were 45.0% and 41.6% respectively, whilst the benchmark sample was 26.0%.

5. Use of Report (English Version Only)

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