7504-9958-8249-5380

# TEST REPORT

1. NO : CT20-096543E
2. Client
   - ○ Name : LG Hausys
   - ○ Address : 98, Huam-ro, Jung-gu, Seoul, Republic of Korea
3. Date of Test : 2020.08.19 ~ 2020.09.15
4. Use of Report : Quality Control
5. Test Sample : HI-MACS
6. Test Method
   (1) KS I ISO 16000-9:2006

| Affirmation | Tested By<br>Name : Kim, Hyun Jin | Technical Manager<br>Name : Lee, Hyun Lyul |
|---|---|---|

Our report apply only to the standards or procedures identified and to the sample(s) tested unless otherwise specified. The test results are not indicative of representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products. The results of using only a portion of this report cannot be guaranteed. The authenticity of this test report can be checked on KCL website(www.kcl.re.kr).

The above test certificate is the accredited test results by Korea Laboratory Accreditation Scheme, which signed the ILAC-MRA.

2020.09.15

**Korea Conformity Laboratories** President Yoon, Kap Seok

Accredited by KOLAS, Republic of KOREA

# TEST REPORT

No : CT20-096543E

## 7. Test Results

1) HI-MACS

| Test Item(s) | Unit | Test Method | Test Results | Remark | Loc. |
|---|---|---|---|---|---|
| Total Volatile Organic Compounds (TVOC) | mg/(㎡·h) | (1) | 0.008 | - | A |
| Benzene | mg/(㎡·h) | (1) | N/D (MDL 0.000 5) | | |
| Toluene | mg/(㎡·h) | (1) | N/D (MDL 0.000 5) | | |
| Ethylbenzene | mg/(㎡·h) | (1) | N/D (MDL 0.000 5) | | |
| Xylene | mg/(㎡·h) | (1) | N/D (MDL 0.000 5) | | |
| Styrene | mg/(㎡·h) | (1) | N/D (MDL 0.000 5) | | |
| Formaldehyde | mg/(㎡·h) | (1) | N/D (MDL 0.000 5) | | |
| √Acetaldehyde | mg/(㎡·h) | (1) | N/D (MDL 0.000 5) | | |

The test method marked with "√" is not accredited by KOLAS.

※ Location

A : #805, I Valley, 149, Gongdan-ro, Gunpo-si, Gyeonggi-do, Korea

# TEST REPORT

No : CT20-096543E

Attach

* Condition of testing

1. Condition of emission test chamber

| | | | |
|---|---|---|---|
| sample type | solid product | sample | board |
| temperature | 24.8 ℃ ~ 25.2 ℃ | loading factor | 2.0 $m^2/m^3$ |
| humidity | 48 % ~ 52 % | air exchange rate | 0.50 $h^{-1}$ |

* Period in Chamber : 7 days

2. Analysis condition of TVOC & VOCs

| | | | | | |
|---|---|---|---|---|---|
| ATD | Temperature (℃) | Tube | Trap | Valve | Transfer line |
| | | 295 | -30 ~ 300, 40 ℃/s | 200 | 200 |
| | Timing (min) | Sample | Trap hold | Desorb | Purge |
| | | 7 | 15 | 8 | 2 |
| | Split ratio | 10 : 1 | | | |
| Detector | | MS | | | |
| Column | | DB-1, Column ID : 0.32 mm, Length : 60 m | | | |
| Carrier gas and flow | | He, 2.5 mL/min | | | |
| Temperature program | Initial temperature | 40 ℃ (5 min) | | | |
| | Temperature program | 6 ℃/min | | | |
| | Final temperature | 280 ℃ (10 min) | | | |
| MS condition | Mode | EI (Electron ionization) | | | |
| | Electron energy | 70 eV | | | |
| | Detection mode | TIC (Scan), m/z : 35 ~ 350 | | | |

3. Analysis condition of aldehyde

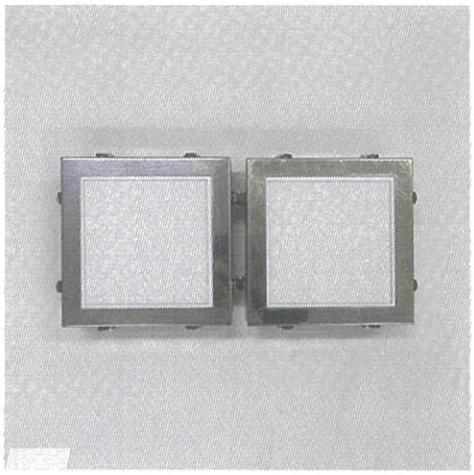
| | |
|---|---|
| Detector | UV/Vis 360 nm |
| Column | $C_{18}$, Column ID : 2.1 mm, Length : 100 mm |
| Mobile phase | Acetonitrile/Water (30/70 v/v → 100/0 v/v (10 min)) |
| Analysis time | 15 min |
| Injection volume | 5 μL |
| Column temperature | 40 ℃ |
| Flow rate | 0.5 mL/min |

----- Continued on the next page -----

# TEST REPORT

No : CT20-096543E

Attach



< Picture #1 >



<Picture #2>

----- End of Report -----