

New standard for solving the automotive lamp fogging issue

1 Product Review



Tackle!!



DesiKhan's Moisture Absorbent

Automotive Lamp Fogging Problem

- DesiKhan's Automotive Lamp Desiccant **currently** used by major car makers : **Hyundai, Kia, Daimler, GM, Geely, Thaco Bus, PEUGEOT, LAND ROVER**
- Since 2017 when they began to use DesiKhan-HM, they **no longer** process the **anti-fog coating** and significantly **reduce** the production and quality **cost**.
- Since 2021 Hyundai and Kia Motors began to use **rear lamp desiccant**.



Are you still processing the Anti-Fog Coating?

2 Huge benefit of DesiKhan

Cost Reduction

Field Claim Reduction



HYUNDAI
MOTOR GROUP



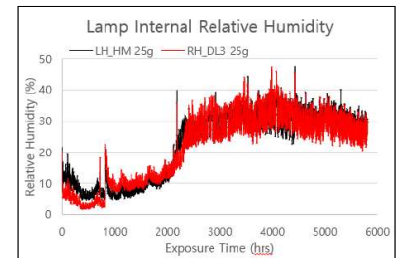
**Best Innovative
Supplier Award 2020**

DesiKhan-Lamp Desiccant vs Anti-Fog Coating

Comparison		Lamp Desiccant	Anti-Fog Coating
			
1	Fundamental Solution	Remove the Moisture	Not Remove the Moisture
2	Cost	1/4	1
3	Quality Claim (3 years' Monitoring)	1/10	1
4	When Lamp Fogging Issue Occurred	Replace Desiccant	Replace the entire Lamp
5	Life-Time	Long	Short
6	Machine / Material / Process Cost	N/A	High Cost
7	Limitation of Lamp shape	N/A	Difficult to be applied to the angular shape

On-going Field Test for Reliability and Stability

❖ Field Test with 40 Taxies (Harshes Condition)



Access Cap



Data Logger

- **Test Purpose (Lamp Desiccant, DesiKhan-HM)**
Monitoring performance and durability
- **Period**
Mar. 2019 ~ Dec. 2022 (3 years' project)
- **Check items (inside the lamp)**
Temperature, Moisture absorption rate, Relative humidity and dew point
- **Harshest Test Condition**
 - Drive more than 15 hours & 250 km everyday, 25 days per month
 - Drive anywhere even unpaved road
 - Car wash every 1 ~ 2 days



■ Test Result

- No fogging & Condensation field claim
- Lamp Clearance Improved
- Bulb Life-Time lengthened from 6 months to longer than 1 year