

**Release Date: For Immediate Release**

**OPR:** Inner Advanced Motor Vehicles Division, MOLIT

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#KNCAP#World-ClassVehicleSafety

## Hyundai Ioniq 5 and Kia Sportage awarded Grand Prize for 2021 KNCAP results

- 2021 KNCAP Results Released on 11 Car Models –

- “We Will Strive to Achieve World-class Vehicle Safety and Promote Vehicle Development for the Future,” says MOLIT Minister Noh –

The Ministry of Land, Infrastructure and Transport (MOLIT, Minister NOH Hyeong-ouk) announced that Hyundai’s Ioniq 5 and Kia’s Sportage came out at the top among 11 models tested under the Korea New Car Assessment Program (KNCAP) in 2021 by Korea Automobile Testing and Research Institute (KATRI), an affiliated research institute of the Korea Transportation Safety Authority (TS, President KWON Yong-bok). The Hyundai Ioniq 5 ranked first in the electric vehicle category, and the Kia Sportage in the internal combustion engine category.

KNCAP – a vehicle safety assessment program – conducts assessments in three sections: ① crash safety, which evaluates passenger protection performance in the event of a collision, ② pedestrian safety, which looks at how well the car protects pedestrians in case of a collision, and ③ accident prevention safety, which assesses the vehicle’s active safety systems such as automatic emergency braking and blind spot detection, etc.












The scores received in 19 detailed tests in the three sections are converted into grades from 1 to 5 for evaluation.

In particular, this year’s KNCAP tested electric vehicle models for the first time. The 11 models evaluated this year include four electric cars and seven internal combustion engine vehicles.

Out of the 11 models, 8 cars received grade 1, and the remaining 3 vehicles received grades 2, 4, and 5 respectively. The highest score (Kia Sportage, 94.1 points) was 1.6 times higher than the lowest score (Volkswagen Jetta, 58.7 points).

Following are the specific results for the 11 models.

## 【2021 KNCAP-evaluated 11 models and results】

Electric car		Internal combustion engine car			
					
<b>Grand prize</b>	<b>Excellent prize</b>	<b>Grand prize</b>	<b>Excellent prize</b>		
<b>Hyundai IONIQ5</b> (1st Grade, 92.1 points)	<b>KIA EV6</b> (1st Grade, 91.9 points)	<b>KIA Sportage</b> (1st Grade, 94.1 points)	<b>KIA K8</b> (1st Grade, 93.4 points)	Hyundai Tucson (1st Grade, 92.4 points)	Audi A6 (1st Grade, 89.2 points)
					
Mercedes-Benz EQA (1st Grade, 88.6 points)	Tesla Model3 (2nd Grade, 85.1 points)	Hyundai Staria (1st Grade, 89.2 points)	Volkswagen Tiguan (4th Grade, 69.7 points)	Volkswagen Jetta (5th Grade, 58.7 points)	

The models that got the best scores were the Hyundai Ioniq 5 and Kia Sportage, which received good results in crash safety and accident prevention safety.

Among the electric vehicle models tested, Hyundai's Ioniq 5 (overall grade 1, 92.1 points) secured the top place, closely chased by Kia's EV6 (overall grade 1, 91.9 points) which came in second.

Both cars obtained good scores (over 90%) and 5stars (★★★★★) in crash safety and accident prevention safety.

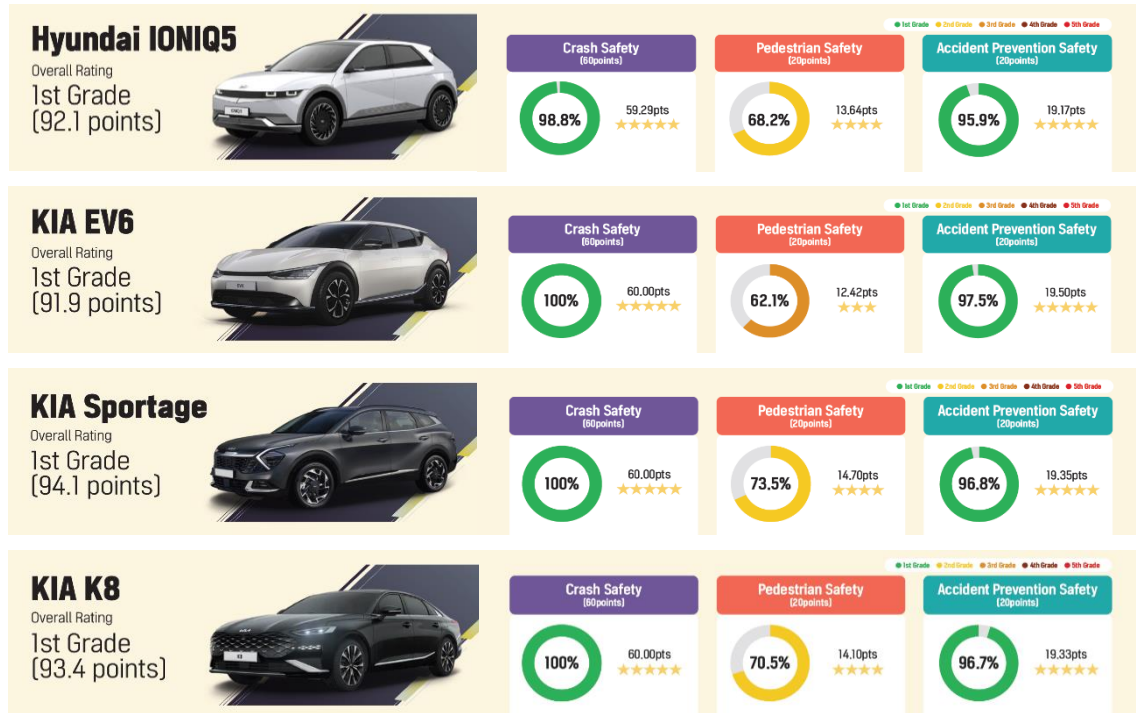
In pedestrian safety, the Ioniq 5 received a “adequate” level 4stars (★★★★) while the EV6 obtained an “marginal” level 4stars (★★★).

Among the internal combustion engine cars, Kia's Sportage (overall grade 1, 94.1 points) ranked first, closely followed by the K8 of the same manufacturer (overall grade 1, 93.4 points) in the second place.

Both models obtained good scores (over 90%) and 5stars (★★★★★) in crash safety and accident prevention safety, and received “adequate” level 4stars (★★★★) in terms of pedestrian safety.

Overall, all trims of the first and second best models in the electric and internal combustion engine vehicle categories are grade 1-level, however, some of the safety features such as Blind Spot Detection (BSD) and Rear Cross Traffic Alert (RCTA) are being offered as options.

## [Hyundai IONIQ5, KIA EV6, KIA Sportage, KIA K8 results]



Efforts should be made by car manufacturers and other entities in the automobile industry to make such features more available to the public like Advanced Emergency Braking System (AEBS) or Lane Keeping Assistant System (LKAS).

□ Volkswagen's Jetta and Tiguan received the poorest results.

The Volkswagen Jetta obtained low scores in crash safety as it failed to meet the injury criteria<sup>1</sup>. The Jetta also had fewer advanced safety equipment installed compared with other car models, which resulted in poor scores and grades (lowest in the vehicle category, around 30%) in terms of accident prevention safety.

Volkswagen's Tiguan also showed poor safety performance in crash-safety. Like the Jetta, the Tiguan also failed to meet the injury criteria for rear-seat occupants, resulting in low scores<sup>2</sup>.

The two Volkswagen models ended up with low scores in crash safety as they were applied with capping limits on injury criteria<sup>3</sup>. Exceeding the capping limits<sup>4</sup> leads to loss of all points related to the tests.

<sup>1</sup> Frontal impact to a fixed rigid barrier: (Front passenger) Exceed head injury limits / (Rear passenger) Exceed head and chest injury limits

<sup>2</sup> Frontal impact to a fixed rigid barrier: (Rear passenger) Exceed head and chest injury limits

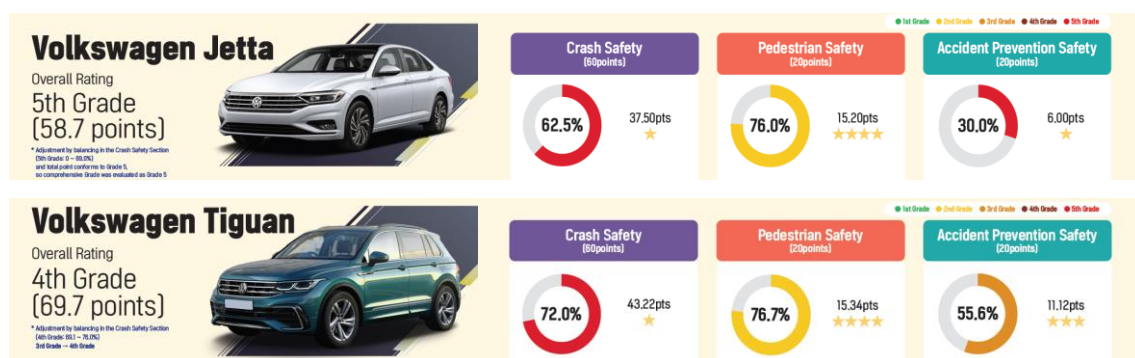
<sup>3</sup> Measure the impact of the collision to critical body regions (head, neck, chest, etc.) of each occupant in the driver's / front passenger / rear seats

<sup>4</sup> Euro NCAP also applies capping limits considering the importance of assessing the level of passenger protection in the event of collision.

The two models may have performed poorly in the KNCAP tests because they fulfill only the minimum requirements<sup>5</sup> to meet the motor vehicle safety regulations, which is mandatory for cars to be sold in Korea. The KNCAP tests impose stricter standards than the motor vehicle safety regulations.

The Volkswagen Jetta exceeded the passenger injury limits on its front passenger seat, which has led to the suspicion that the car fails to satisfy the safety regulations. MOLIT plans to conduct a vehicle defect investigation on the Jetta and take appropriate actions, such as recalls and penalties, to protect to consumers.

### [Volkswagen Jetta, Tiguan results]



□ Electric vehicles and internal combustions engine vehicles did not show much difference in terms of safety.

When comparing the average scores of grade-1 electric and internal combustion engine vehicles by each test section, there was little difference between the electric cars and internal combustion engine vehicles in crash safety and accident prevention safety. However, the internal combustion engine cars showed 6.7%p better performance in pedestrian safety compared to the electric vehicles.

<sup>5</sup> (Minimum requirements: Korea Motor Vehicle Safety Standards (KMVSS)) Prerequisite for launch and sale of motor vehicles → substandard vehicles cannot be sold in Korea  
(Higher requirements: Korea New Car Assessment Program (KNCAP)) Stricter than KMVSS, test results openly published → encourage manufacturers to invest in safety

### 【Comparison of the three section average scores of grade-1】

Classification	Crash Safety	Pedestrian Safety	Accident Prevention Safety
Electric Car (IONIQ5, EV6, EQA)	99.6%	66.9%	88.7%
Internal Combustion Engine Car (Sportage, K8, Tucson, A6, Staria)	98.7%	73.6%	88.4%
<b>Note</b>	Electric Car <b>0.9%p ↑</b>	Engine Car <b>6.7%p ↑</b>	Engine Car <b>0.3%p ↑</b>

This is because the Audi A6, one of the internal combustion engine cars tested, solely obtained a high score that amounts to grade 1 (83.3%, the highest score in pedestrian safety) with its deployable bonnet system<sup>6</sup>.

Through various collision tests<sup>7</sup>, the electric vehicles were found to meet the level of safety regarding the risk of explosion, fire, and electric shocks, which is required of their high voltage batteries under the KNCAP standards.

MOLIT held an awards ceremony to present awards to the cars that received the first and second best scores in each vehicle category – electric and internal combustion engine vehicles –, and also held a seminar to discuss ways to further improve Korea’s vehicle safety policy.

“The government will strive to achieve world-class level of vehicle safety by setting out safety policies that support development of new technologies,” said MOLIT Minister Noh Hyeong-ouk in his congratulatory speech at the ceremony.

He added, “We will make bold moves to reduce regulatory burden to facilitate the development of new and advanced vehicles for the future. At the same time, we will actively encourage the uptake of eco-friendly cars to achieve carbon neutrality by 2050,” showing Korea’s strong commitment in achieving these goals.

For further information regarding the above article or request for covers,  
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<sup>6</sup> (Deployable, or “pop-up” bonnet system) A deployable bonnet is designed to rise in a collision involving a pedestrian so that the raised bonnet can absorb the impact, mitigating injury for the pedestrian.

<sup>7</sup> Frontal impact to a fixed rigid barrier at 56km/h, frontal offset crash to a deformable barrier (40% overlap) at 64km/h, lateral impact at 60km/h, and side pole impact at 32km/h.