ASEAN NCAP – SAFER CARS FOR ASEAN REGION

ASEAN NCAP Results Announcement for Quarter 1, 2016 at SAFE STEPS Road Safety Pre-Launch Dinner

Kajang, 12 February 2016 – The New Car Assessment Program for Southeast Asian Countries (ASEAN NCAP) recently performed several crash tests on popular models in the ASEAN region. The results for ASEAN NCAP crash tests were announced during SAFE STEPS Road Safety Pre-Launch Dinner held in Kuala Lumpur. One of the tests performed was an audit test on Hyundai i10. Hyundai i10 was first crash tested by ASEAN NCAP in 2012 during its Phase 1 installment. The vehicle was selected by ASEAN NCAP’s Steering Committee based on the list of popular manufacturers in the ASEAN region. The Hyundai i10 crash tested during Phase 1 in 2012 achieved 2-Star for Adult Occupant Protection (AOP) with 7.31 points out of 16 points. Whilst in the Child Occupant Protection (COP) category, it obtained 48% compliance (within 2-Star range).

Hyundai i10 model was selected based on a survey carried out by ASEAN NCAP in early 2015. The survey was conducted in order to gauge public’s expectation on the vehicles that were crash tested during the first phase of ASEAN NCAP whether any improvements with regards to safety have been made after the test. In the audit test, Hyundai i10 did not perform well in the AOP by scoring 4.40 points on the test, which is in the 1-Star rating range. The audit test result shows the i10’s performance deteriorated than the 2012 crash test. Nevertheless, i10’s performance result for COP fared relatively well with 79% compliance (4-Star rating) compared to 2-Star in 2012.

ASEAN NCAP Chairman, Prof. Dr. Wong Shaw Voon commented that Hyundai i10 is the first audit test performed by ASEAN NCAP and sadly to say the result is upsetting. “The main purpose of conducting such test is to check on manufacturing consistency particularly on the safety performance of a vehicle. ASEAN NCAP is disappointed with this test result and we will definitely do more audit tests in the future in order to regularly check manufacturers’ commitment to safety.” Professor Wong also stated that credits should be given to Bloomberg and Global NCAP for this opportunity because with continuous follow-ups, manufacturers will not be too comfortable with their current vehicles achievement, hence, they will continue to improve vehicle safety.

ASEAN NCAP Secretary-General, Mr. Khairil Anwar Abu Kassim said, “Despite deteriorated AOP result, i10’s COP result has improved significantly with the introduction of ISOFIX in the car; from 2-Star to 4-
Star rating. This shows the use of car seats with ISOFIX and top tether can make significant impact on the children’s safety.” ASEAN NCAP will work with OEMs to improve the installation of passive safety parts in future vehicles, he added.

**Ford Everest and Toyota Fortuner**

ASEAN NCAP also carried over two previous crash test results. The carried over results are for Ford Everest and Toyota Fortuner. The result for Everest was released by Australasian New Car Assessment Program (ANCAP) in October 2015 while Hilux was released in September 2015.

ANCAP had crash tested the third generation model of Ford Everest in October 2015. The sport utility vehicle (SUV) was based on the design of current Ford Ranger in which ASEAN NCAP carried over ANCAP’s result and verified it with Ranger’s result. Everest scored very well in AOP with 15.38 points, a 5-Star rating with ESC equipped in all its variants. As for its COP, Everest achieved 81% compliance which places it within 4-Star category.

For Toyota Fortuner, ASEAN NCAP received technical evidence from Toyota that it has comparable occupant protection with identical design and similar restraint system for crashworthiness as in Hilux. Hence, the SUV received 14.53 points for AOP similar to the tested pick-up truck. However, due to 5-Star prerequisite for AOP in which models with Electronic Stability Control (ESC) are rated as 5-Star, Fortuner’s variants without ESC are rated 4-Star. As for COP, its scored 71% compliance with 4-Star rating.

**Nissan Grand Livina and Toyota Innova**

Grand Livina is the fourth model under Nissan’s brand tested by ASEAN NCAP. The MPV model received 4-Star rating for AOP with 12.50 points. With the absence of ISOFIX and top tether, Grand Livina’s COP managed to meet 41% compliance, within 2-Star category.

Toyota Innova, after Avanza, is the second MPV model under the Toyota brand tested by ASEAN NCAP. It obtained a good score with 14.10 points for AOP. As ASEAN NCAP has set a 5-Star prerequisite for a variant to be equipped with ESC, only Innova’s variants that has ESC is eligible to receive 5-Star AOP rating. Variants without ESC is relegated to 4-Star. In COP, Innova achieved 76% compliance, result that places it in 4-Star COP rating.

SAFE STEPS Road Safety is a pan-Asian public service initiative aimed to raise awareness and provide clear and simple life-saving educational messages on road safety. SAFE STEPS Road Safety programme is created and developed by Prudence Foundation, in partnership with National Geographic Channel and the Federation Internationale de l’Automobile (“FIA”). Go to [https://safesteps.com/road-safety/](https://safesteps.com/road-safety/) for further information on the safe steps.

The gist of ASEAN NCAP Q1 2016 results are as follows.
- **Hyundai i10** achieved **1-Star** rating with the score of **4.40 points** for its AOP. The result deteriorated from the crash performed during Phase 1 in 2012, in which it scored 7.31 points, a result that falls within 2-Star category. The i10 performance in COP has improved tremendously with an achievement of **79%** compliance (**4-Star** rating). This is a significant improvement if compared with the previous result of 48% compliance, which is in the range of 2-Star.

- **Ford Everest** scored **15.38 points** for AOP and with the availability of ESC, it deserved the **5-Star** rating for AOP. For COP, Everest performed better than Ranger with **81%** compliance. This percentage places it within the range of **4-Star**.

- **Toyota Fortuner**’s score is a carried over from Hilux’s result. With **14.43 points** for AOP, the SUV received dual rating with **4-Star** for variants that are not equipped with ESC and **5-Star** for variants with ESC. Similar to Hilux, Fortuner’’s COP result achieved **4-Star** with **71%** compliance.

- The MPV **Nissan Grand Livina** received **12.50 points** for AOP, score within the range of **4-Star** rating. While for its COP, Grand Livina obtained **2-Star** rating with **41%** compliance.

- **Toyota Innova** scored **14.10 points** for AOP. With ASEAN NCAP 5-Star prerequisite, Innova received dual rating with variants equipped ESC is eligible for **5-Star** AOP, while the ones without received **4-Star**. In the COP category, Innova’s performance met **76%** compliance, in which the percentage is within **4-Star** rating.
FORD EVEREST WITH 7 AIRBAGS

ADULT OCCUPANT PROTECTION

5 / 5
15.38 / 16.00

CHILD OCCUPANT PROTECTION

5 / 5
81%

SIDE IMPACT TEST (UN R95): PASS

CRASH TEST OCTOBER 2015
ASEAN NCAP

ASEAN NCAP is a new addition to the NCAP organizations around the world, which is targeted to enhance safety standards, raise consumer awareness and thus encourage a market for safer vehicles in the Southeast Asia region (ASEAN community). This is a collaborative effort by MIROS and Global NCAP, in which the latter funded the pilot phase of the project. ASEAN NCAP is also supported by the membership of Automobile Associations from Malaysia (AAM), the Philippines (AAP), Singapore (AA Singapore), Cambodia (AAC) and Thailand (RAAT).
Currently, ASEAN NCAP Steering Committee (SC) is chaired by the Director-General of MIROS/ASEAN NCAP Chairman, Prof. Dr. Wong Shaw Voon and the Technical Committee (TC) is chaired by the ASEAN NCAP Secretary-General, Mr. Khairil Anwar Abu Kassim.

Frontal Offset Crash Test

Frontal Offset crash test is conducted by having crash test dummies (Hybrid III 50th percentile - male) at both the driver and front passenger seats and two child dummies (P3 and P1.5) inside the child restraint system (CRS) in the test car that moves at 63 km/h (closing speed) when it hit a crash barrier (crushable aluminium barrier). The test results are described below.

❖ Adult Occupant Protection (AOP) – Driver & Front Passenger

The result from sensors installed in the dummies and at the body of the car will be analyzed and classified by human body region. To sum up, the worst result from each dummy (implies injury level; compared) by body region is considered and accumulated (A). The assessment on the vehicle is also carried out to consider real-world situation known as “modifier” assessment (B). Any “penalty” (B) will be deducted from the previous score (A) to produce the final score (C = A – B). Out of 16 points (C), the star rating will be determined by the following scheme.

<table>
<thead>
<tr>
<th>Score</th>
<th>Star Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.00–16.00</td>
<td>★★★★★</td>
</tr>
<tr>
<td>11.00–13.99</td>
<td>★★★</td>
</tr>
<tr>
<td>8.00–10.99</td>
<td>★★</td>
</tr>
<tr>
<td>5.00–7.99</td>
<td>★</td>
</tr>
<tr>
<td>2.00–4.99</td>
<td>★</td>
</tr>
<tr>
<td>0.00–1.99</td>
<td>Zero Star</td>
</tr>
</tbody>
</table>

❖ Child Occupant Protection (COP) – 3-year-old and 18-month-old Infant

The result for child occupants will be based on the CRS used in the test as well as the injury level read by the in-dummy sensors. The P3 and and P1.5 child dummies represent 3-year-old and 18-month-old infant, respectively. Thus, by test definition, the result can be defined as “the level of protection for the child occupant by using the stated CRS model in that car with specified (available) CRS attachment method e.g. by using ISOFIX, top tether or solely seatbelt”.

The final result that is in percentage-based will be derived from the following scheme.

<table>
<thead>
<tr>
<th>Child Occupant Rating Scheme</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic Test</td>
<td>24/24</td>
</tr>
<tr>
<td>CRS Based Assessment</td>
<td>12/12</td>
</tr>
<tr>
<td>Vehicle Based Assessment</td>
<td>13/13</td>
</tr>
</tbody>
</table>
From September 2013, star rating is also applied in COP which previously stated only the percentage of compliance. The star rating will be determined by the following scheme.

<table>
<thead>
<tr>
<th>Compliance Score (Percentage)</th>
<th>Star Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>43.00–49.00 (&gt;87%)</td>
<td>★★★★★</td>
</tr>
<tr>
<td>34.00–42.00 (69%–86%)</td>
<td>★★★★</td>
</tr>
<tr>
<td>25.00–33.99 (51%–68%)</td>
<td>★★★</td>
</tr>
<tr>
<td>15.00–24.99 (31%–50%)</td>
<td>★★</td>
</tr>
<tr>
<td>0.01–14.99 (0.02%–30%)</td>
<td>★</td>
</tr>
<tr>
<td>0.00 (0%)</td>
<td>Zero-Star</td>
</tr>
</tbody>
</table>

New Pre-requisite

Starting January 2015, side impact test (UN R95) was introduced as a new pre-requisite in AOP for 3-Star and above (pass-fail).

ASEAN NCAP Rating Plate – Results Simplified for Public Consumption

As the result of the test is primarily for public consumption i.e. for consumers to consider the quality of safety protection offered by the car model based on NCAP assessment, they can simply refer to the star rating for AOP as well as COP. Due to the above mentioned changes in the rating scheme, a new result plate is introduced effective from September 2013.
**About MIROS** – The Malaysian Institute of Road Safety Research (MIROS) is an agency under the Ministry of Transport (MOT) Malaysia focusing on road safety R&D activities.

**About Global NCAP** – Global NCAP is a non-profit organization registered in the United Kingdom which aims to encourage the worldwide availability of independent consumer information about the safety of motor vehicles.

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