Recall System & Latest Issue in Korea
(Defect investigation on panoramic sunroof)

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Contents

I MOLIT, Motor Vehicle Policy Bureau

II Recall System in Korea

III KATRI, Defect Investigation Agency

IV Latest Issue (panoramic sunroof)

V Conclusion & Discussion
MOLIT, Motor Vehicle Policy Bureau

MOLIT is with you for your happiness
I. MOLIT, Motor Vehicle Policy Bureau

- Motor Vehicle Policy Bureau is part of MOLIT

- Motor Vehicle Policy Bureau has 4 Divisions

KATRI (Korea Automobile Testing & Research Institute): Recall investigation under the supervision of the Motor Vehicle Management Division
Recall System in Korea

Your safety is our priority
II. Recall System in Korea

- When sold automobiles are self-certified by the manufacturer
  - Self-Certification Compliance Investigation
    : confirms whether related regulations are observed
  - Safety Defect Investigation
    : investigates whether safety-threatening defects are present

- When a defect fails to observe standards or threatens safety
  Owners of the vehicle in question are notified and the vehicle is subjected to repair, exchange or refund

< Related Regulations >
- Article 30-3 of the Automobile Management Act
  (Suspension of production or sale of automobiles or automotive parts)
- Article 31 of the Automobile Management Act
  (Correction of manufacturing defects)
II. Recall System in Korea

1. Self-Certification Compliance Investigation

Compliance test procedure

Checking whether sold automobiles meet vehicle safety standards through self-certification system

Samples are randomly selected by purchasing vehicles from the market. Test performed to check whether samples comply with vehicle safety standards and results are made public.
II. Recall System in Korea

2. Defect Investigation

Defect information is collected through the Internet, telephone, media and 57 inspection stations. Upon confirmation of the defect being a serious issue, a defect investigation is launched. If the defect is identified as safety-threatening, all affected models are recalled.

- www.car.go.kr
- 080-357-2500
- TS vehicle inspection stations

Recall alarm service (recall information via text message/e-mail)
KATRI, Defect Investigation Agency

The world’s best and most trusted Vehicle safety agency
### History

**1980s**
- May 1987: Established KATRI (Korea Automobile Testing & Research Institute)
- Sep. 1987: Appointed as a Vehicle Safety Testing Institute (by MOLIT)

**1990s**
- Jan. 1994: Extended test items of vehicle safety test (6→38 items)
- Nov. 1996: Completed construction of 7 Indoor Testing Institute Facilities

**2000s**
- Dec. 2002: Completed phase 1 of Proving Ground
- Jan. 2003: Appointed as a Performance Test Institute (MOLIT)

**2010s**
- May. 2013: Hosted the 23rd ESV International Conference
- Nov. 2013: Construction of 4 advanced test tracks

### Staff
- Staff of KATRI: 128 persons (Master’s degree or higher: 76 persons)
- TS vehicle inspection stations: 57 locations (525 persons)
Total area: 2,146,383 m²
- 7 test buildings: 29,464 m² (108 evaluation equipment)
- Proving ground: 1,650,000 m² (14 test tracks)
Latest Issue
(panoramic sunroof)

We have state-of-the-art facilities as well as the best engineers
IV. Latest Issue (panoramic sunroof)

- Sharp increase in consumer complaints of panoramic sunroof
  - 2011: 2 cases
  - 2013: 33 cases (5 cases of imported models)

- Details of consumer complaints
  - Sudden shattering of panoramic sunroof while driving the car with the driver unaware
  - Driver may suffer abrasions due to shattered glass and encounter risk of secondary accidents
IV. Latest Issue (panoramic sunroof)

Images of panoramic sunroof damages

Ceramic Print Area: impact point
IV. Latest Issue (panoramic sunroof)

Characteristics of panoramic sunroofs

◆ The use of panoramic sunroofs has been increasing since 2007
◆ The ceramic print area was small in conventional sunroofs, but, with the introduction of panoramic sunroofs the ceramic print area has increased
  • Ceramic print area of panoramic sunroofs is 50% on average, and 90% maximum.
◆ Black enamel, the paint used for ceramic print area of automobile toughened glass, is produced by 2 companies and is distributed throughout the world
  • Components of black enamel thought to be adulterant in toughened glass – impairs sunroof strength
IV. Latest Issue (panoramic sunroof)

Results of 227g ball drop test

- **Toughened Glass (Area without ceramic print)**
  : No shattering even at drop height of 10 meters

- **Toughened Glass (Ceramic print area)**
  : Shattered at average height of 1.4 meters

- **Original Glass (prior to toughened)**
  : Shattered at average drop height of 3 meters

- **Complaint Manufacturers’ Opinion**
  - Not require a ball drop test for ceramic print area
  - Point of impact: geometric center (UN R43), support center (GTR 6)
Conclusion & Discussion

We will become the world’s most trusted vehicle safety organization
Ceramic printed toughened glass cannot be considered toughened glass as its strength is poorer than to original glass

- Ceramic printed toughened glass: approx. 1.4 m
- Original glass prior to toughened: approx. 3.0 m
Proposed an discussion of vulnerability of ceramic print area of toughened glass

- Whether it is safe for toughened glass for automobiles?
  - Determined that there is no safety issue - **Closing discussion**
  - Determined that the safety problems - **Requires discussion**
    
    * Amendment for UN R 43 & GTR 6

- Safety concerns, Sales for the panoramic sunroof of automobile is determined by the range should be recalled

- Manufacturers need to take the initiative in developing ways to improve the strength of ceramic print area
Thank you very much!!

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