

CSR FOCUS AREAS

Customer Satisfaction and Quality Management (Car Maker/ General Customers and Dealers)
Employee Health and Safety Management
Climate Change and GHG Management
Employee Value Creation

Focus 05

Integrated Environmental Management
Community Involvement and Development
Transparency and Business Ethics
Win-win Supply Chain Partnership

Case Study

Topic | Responding to emerging risks: the effect of tire and road wear particles on the occurrence of particulate matters in the air

1 Overview

Despite the fact that the Ministry of Environment issued a press release correcting the results of a study asserting that tire wear particles significantly contribute to airborne particulate matter, the study continues to be quoted in media reports. As the government and the public in Korea pay increased attention to issues of particulate matter, their interest in the impact of tire wear particles on the occurrence of particulate matter is growing. In this regard, inaccurate information could damage our corporate image and result in tightened regulations on tire products.

3 Results

The TIP study confirmed that TRWP do not pose serious risks to humans or the environment. According to the study, TRWP account for less than 3% of PM10 and 1% of PM2.5. As tires are made from rubber, tire wear mainly creates coarse particles.

4 Future plan

Wear is a physical result of the basic function of tires. If friction is not properly created between tires and roads, the safety of drivers and passengers is impacted. In response, the TIP is continuing its R&D efforts to enhance tire durability by minimizing wear while keeping other functions intact. Identifying the potential impact of TRWP on health and the environment remains a top priority.

2 Our response

Supported by eleven tire companies, the Tire Industry Project (TIP) has conducted scientific research from 2006 to collect and identify tire and road wear particles. The research confirms that particles are created through a combination of rubber from tires and road wear particles.

- The ratio of tire wear to road wear particles is 6:4.
- A new term, TRWP (tire and road wear particles) was coined.



↑ KIT drum machine for creating and collecting TRWP (outside)
← KIT¹⁾ drum machine for creating and collecting TRWP (inside)

1) KIT: Karlsruhe Institute of Technology