





R&D of the Ministry of SMEs and Startups, Republic of Korea

# **Recycled Cold Stabilization** Base Course Asphalt Paving Mixtures

## Need for Technology Development and Government Policies in South Korea

Global Increase in Environmental Pollution Concerns

**AIR POLLUTION – THE SILENT KILLER** 

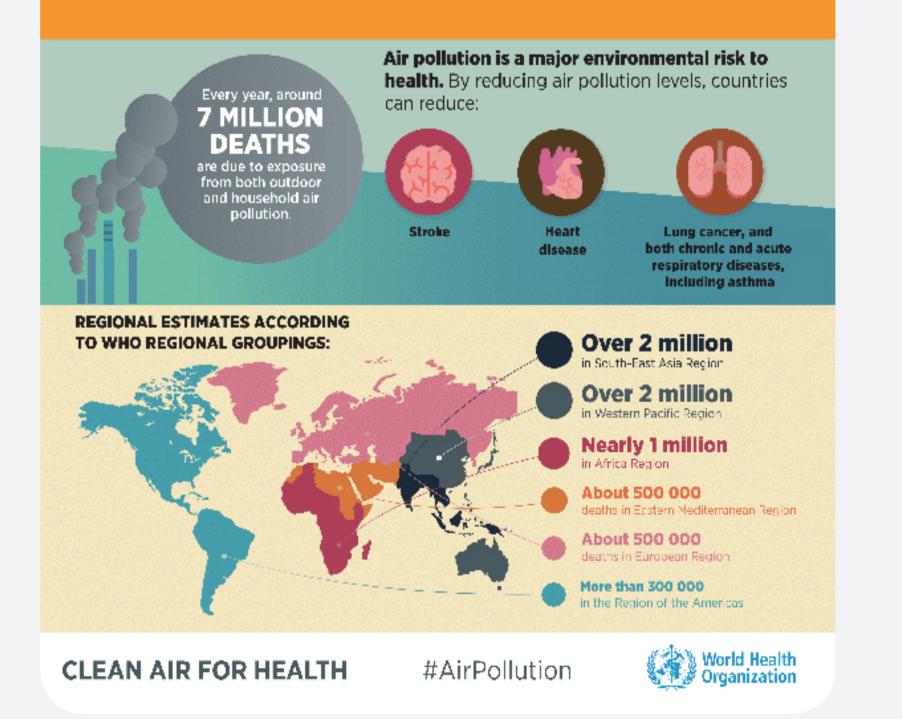
Air Pollution Causes 7 Million Premature Deaths Annually

• Focus on Public Health Threats from Pollution Sources in Industrial Sites

South Korea's Efforts Towards Carbon Neutrality







Release of Air Quality Guidelines for Particulate Matter and Nitrogen Dioxide

#### Establishing a Green Industry Innovation Ecosystem

Fostering Promising Green Companies Development of Low-Carbon and Green Industrial Complexes Investment in Pollution Prevention Facilities Support for Smart Eco-Friendly Factories and Clean Factories

코폴

### 대통령직속 2050 탁소중립 녹색성장 위원회

**Presidential Commission on Carbon Neutrality and Green Growth** 

시멘트

# **Product Definition**

# **Copolimer Additives**



By using 100% recycled aggregates for asphalt concrete, we enhance the recycling rate of waste asphalt. This innovative road base material, produced at ambient temperatures by mixing cement and copolymer additives, results in zero carbon emissions during the production process, making it an environmentally friendly, low-carbon green product.



The copolymer additive is a dual-functional agent with hydrophobic properties that bind with reclaimed asphalt in the recycled aggregates, and hydrophilic properties that bind with cement.

### Environmental Benefits of Recycled Cold Stabilization Base Course Asphalt Paving Mixtures

### Hot Mix Asphalt Paving Mixture





### Recycled Cold Stabilization Base Course Asphalt Paving Mixtures



Product Manufacturing

#### Paving and Construction

- High Temperature Heating Leading to High Emissions of Carbon and Air Pollutants
  - Vulnerability of Worker Safety and Risk of Burns in High–Temperature Environments
- Production and Construction: High-Temperature Range of 160°C to 170°C



Paving and Construction



Product Manufacturing

Improving Worker Safety and Preventing Accidents in the Work Environment