

# NEWTLAC<sup>®</sup> 5500

Eco-friendly & Highly Durable Asphalt Modifier

**KaO**  
Kirei-Making Life Beautiful

## What is NEWTLAC?

NEWTLAC is an engineered environmentally friendly polymeric asphalt additive containing approximately 40% waste plastic (recycled PET plastic). The recycled plastic is chemically reacted onto the polymer backbone structure. NEWTLAC can be pre-blended to the asphalt binder at the terminal (wet-process) or added to the asphalt mix at the HMA plant (dry-mix process). While NEWTLAC does not affect the original PG grade asphalt, it provides added value by improving the fuel resistance and resistance to deformation of the asphalt pavement. NEWTLAC is recommended for truck stops and commercial parking lots by expanding the pavement life cycle and reducing repair and maintenance costs.

## Upcycling of Waste Plastics for Asphalt Modifier

Waste Plastics



Functionalized Polyester Resin  
(Reacted with 40% Recycled PET)



Chemical Reaction



NEWTLAC

Long Lasting  
Pavement



1,400 PET Bottles  
per 100m<sup>2</sup>

## Durability of Pavement with NEWTLAC

Anti-Rutting Performance : Wheel Tracking Test

**Without NEWTLAC**

Conventional Asphalt Pavement (PG grade)



**With NEWTLAC**



\*Deformation after 1 hour evaluation

**Asphalt Pavement with NEWTLAC is Long-Life**

# Benefits of NEWTLAC

## Oil resistance

Sample soaked in kerosene for 24hrs  
(Modified FAA P-404 test procedure)

Without NEWTLAC

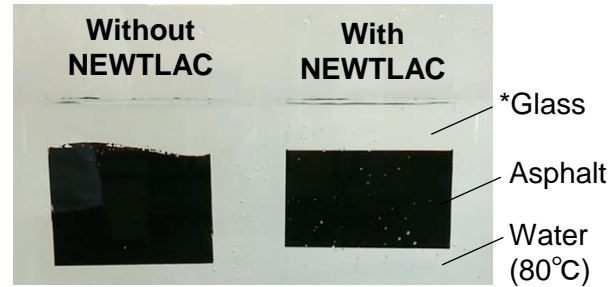
With NEWTLAC



NEWTLAC improves fuel resistance properties

## Water resistance

Evaluation of aggregate-asphalt adhesion  
(Model test)



1 minute



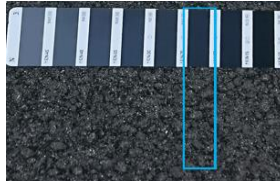
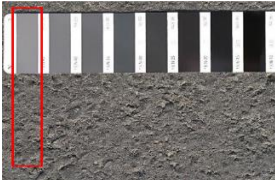
NEWTLAC improves water resistance

\*Glass is similar chemical composition to aggregate

## Beauty

Without NEWTLAC

With NEWTLAC



# Economy of NEWTLAC

## Image of Cost by Performance

