

# ECO-FRIENDLY & EASY-HANDLING NEWTLAC 6000SMA

## ABOUT NEWTLAC 6000SMA

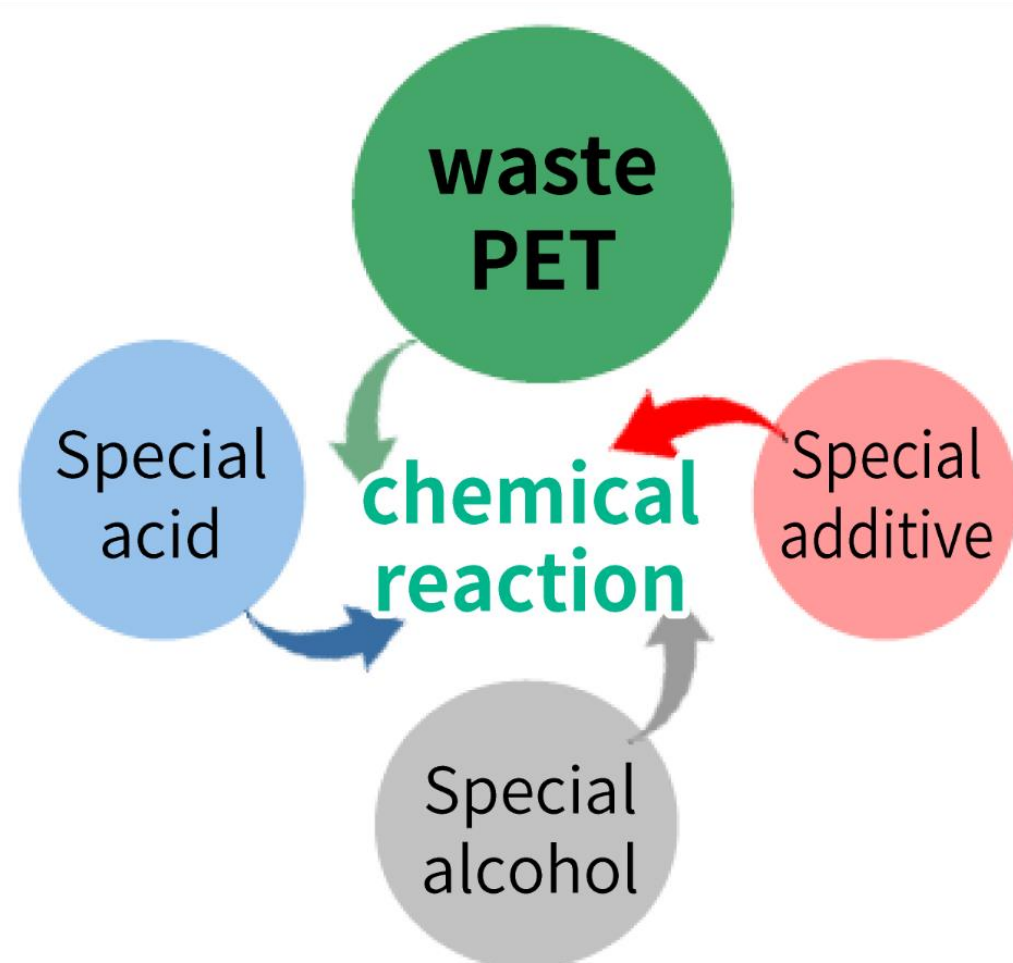
NEWTLAC 6000SMA is a patented environmentally friendly polymeric asphalt additive designed for hot-mix asphalt. It can be added through a dry process at the HMA plant or wet process at the asphalt binder plant. The additive does not impact the original asphalt binder performance grade while replacing the fiber. This helps improve the skid resistance and extend the range of HMA handling temperature.



## ECO-FRIENDLY MATERIALS

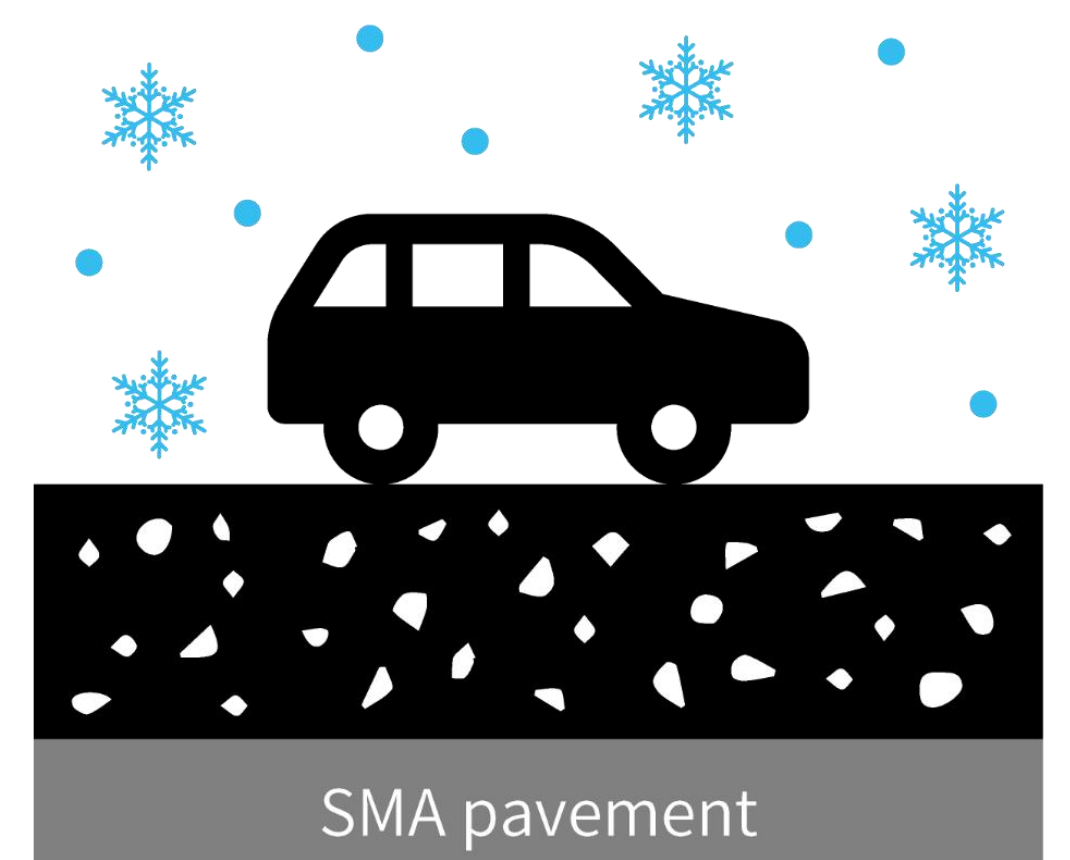


crushed waste PET



NEWTLAC 6000SMA

Approx. 40% of  
recovered PET can be  
effectively used in NEWTLAC



4500 recycled bottles are consumed per  
1000 m<sup>2</sup> area (5 cm thick asphalt)

NEWTLAC 6000SMA is an environmentally friendly polymeric asphalt additive containing approximately 40% recycled PET plastic (by weight). NEWTLAC 6000SMA is an engineered polymer using recycled plastics as raw material, chemically reacted onto its unique polymer structure. As-is PET plastics is characterized by a high melting temperature (> 200 °C), making it difficult to process in the HMA plant under standard conditions. However, after its chemical modification using a proprietary process, the resulting melting point of NEWTLAC 6000SMA polymer is reduced down to approximately 100 °C, making it easy to process under standard HMA plant conditions.



# BENEFITS

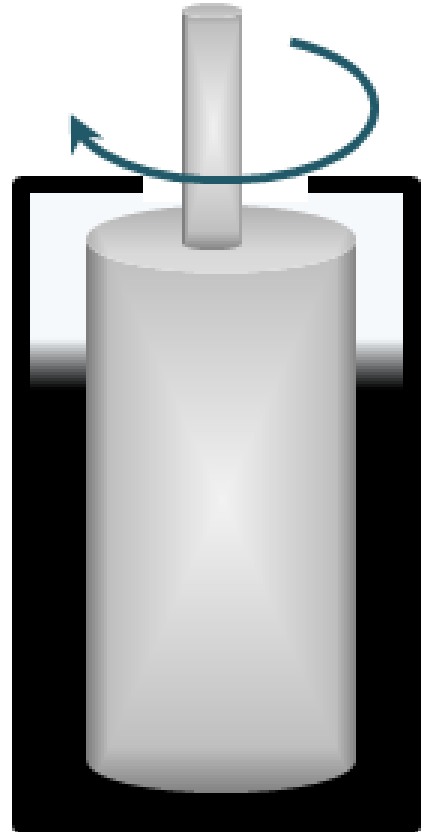
## MASTIC VISCOSITY AGAINST SHEAR RATE

### Brookfield viscometer model

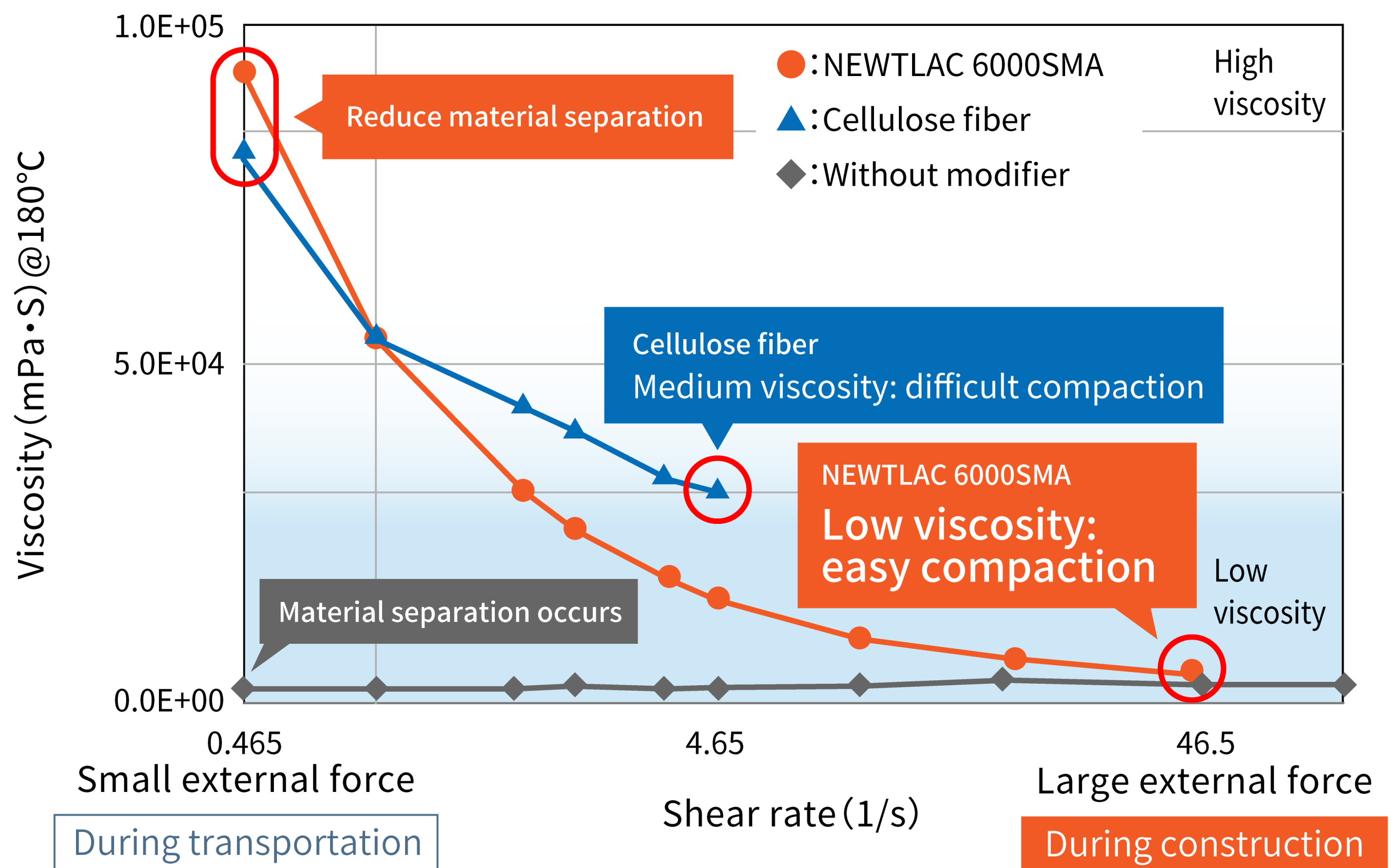
Shear rate (1/sec)

= Shear rate constant (SRC) x Speed (RPM)

= 0.93 x RPM



Mastic = PMA : Mineral filler  
= 1 : 2



Viscosity at low shear rates impacts draindown performance, and viscosity at high shear rates impacts ease of handling in both the plant and field, as well as finished pavement surface texture. Since NEWTLAC mastic has a unique viscosity vs. shear rate curve, NEWTLAC provides both easy handling and high surface texture, without compromising draindown performance.

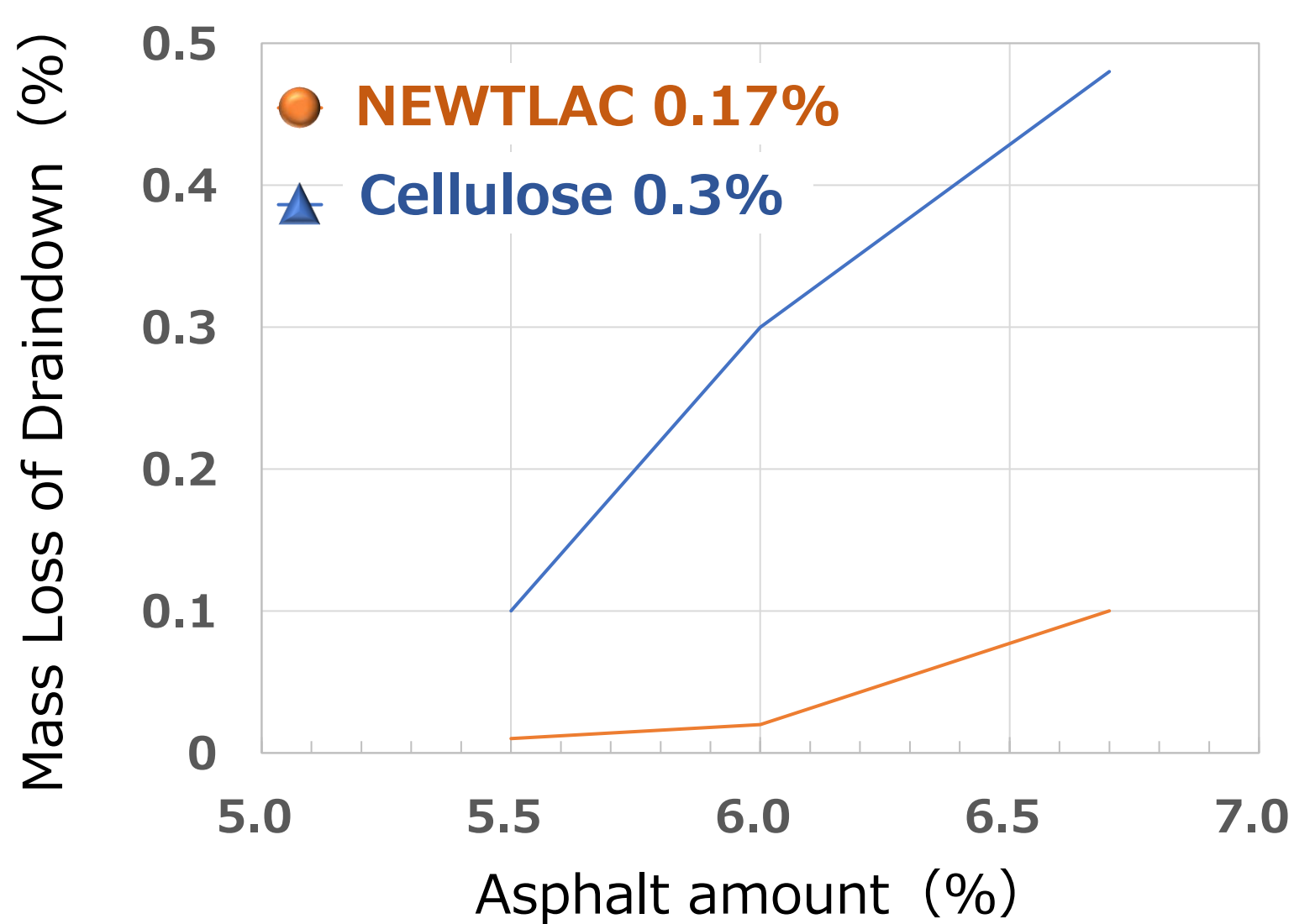
## Workability



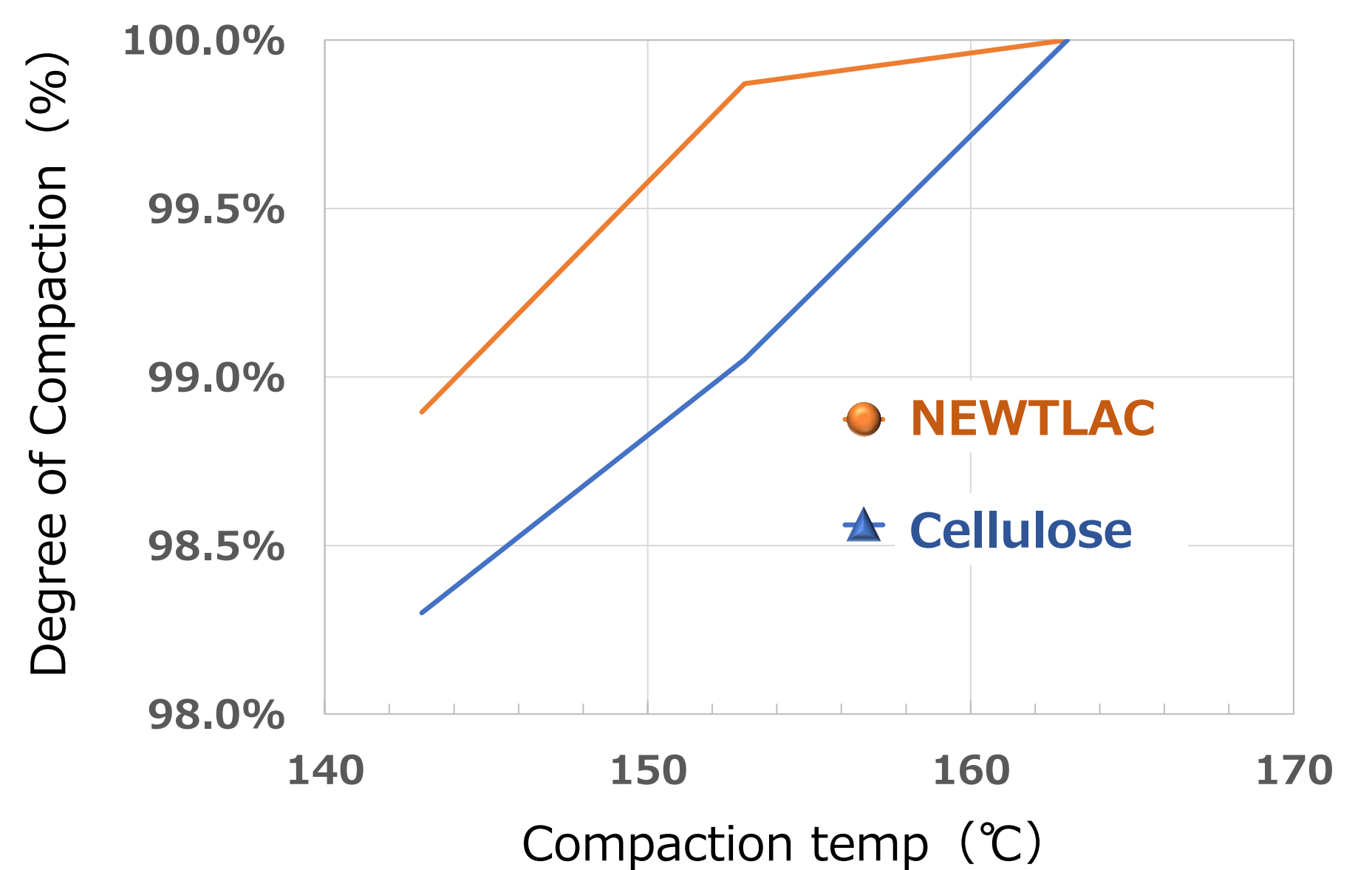
Manufacturing plant

Construction site

### Working as draindown inhibitor



### Compaction



NEWTLAC 6000SMA realizes transporting asphalt mixture that remains in good condition and providing a comfortable construction operation.



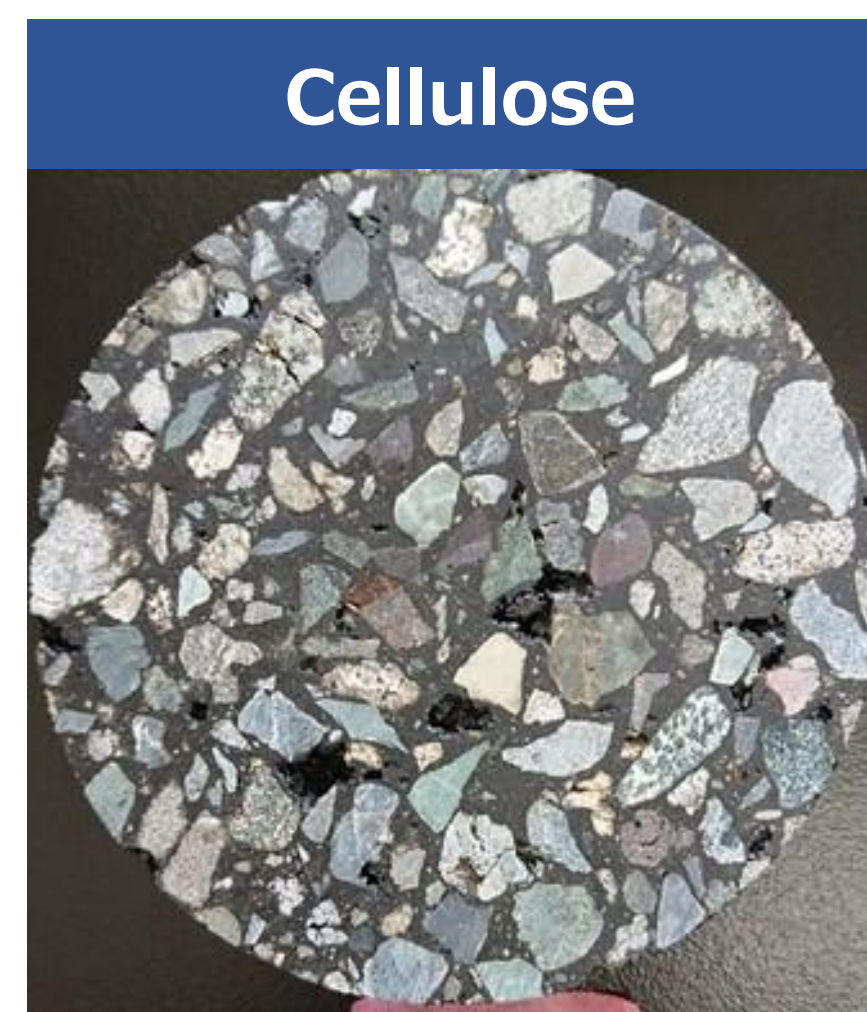
# QUALITY IMPROVEMENT

## Surface



Improve more than 10% road surface roughness and increased safety

## Internal

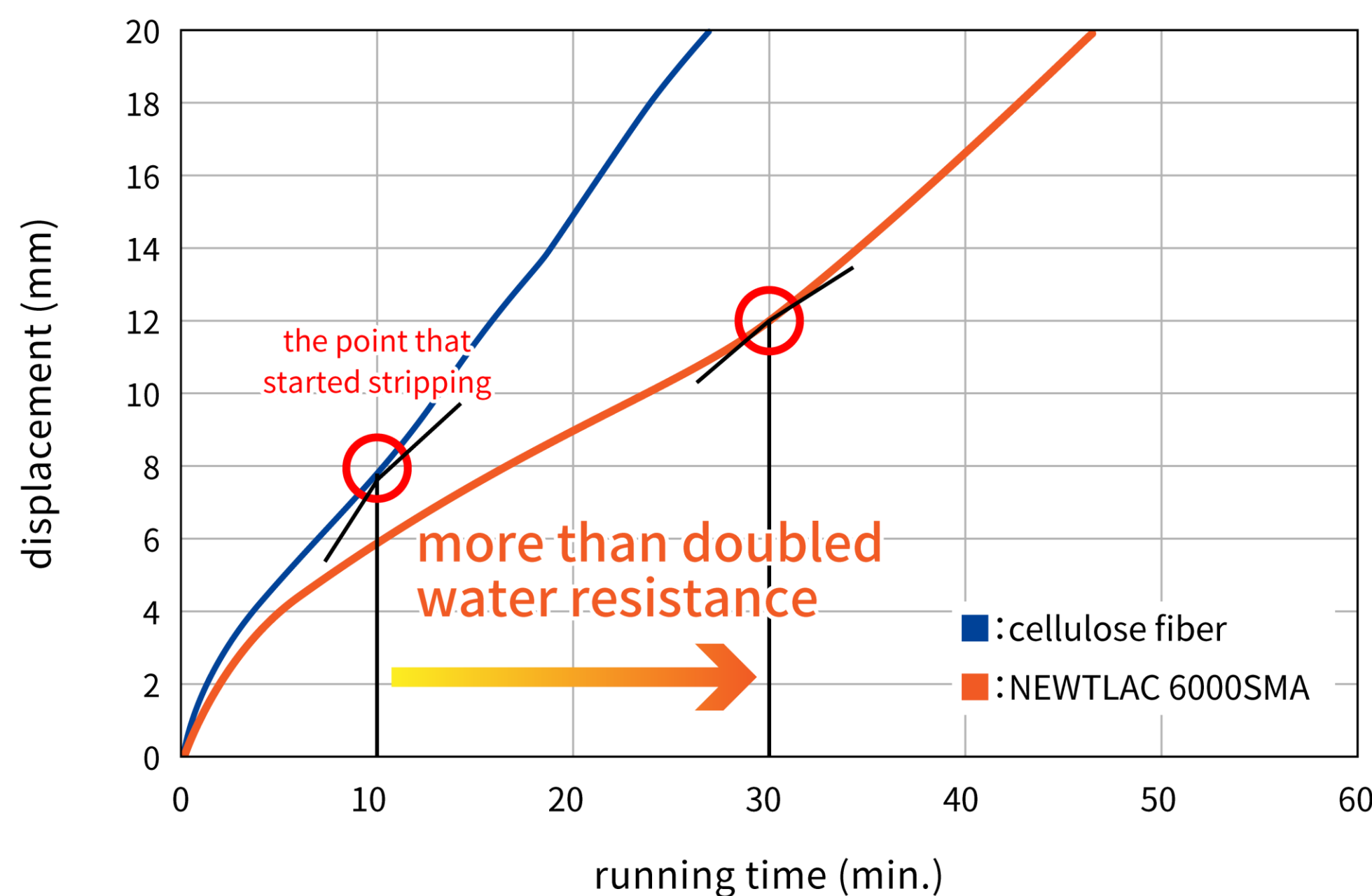


Realization of dense pavement material and longer pavement life

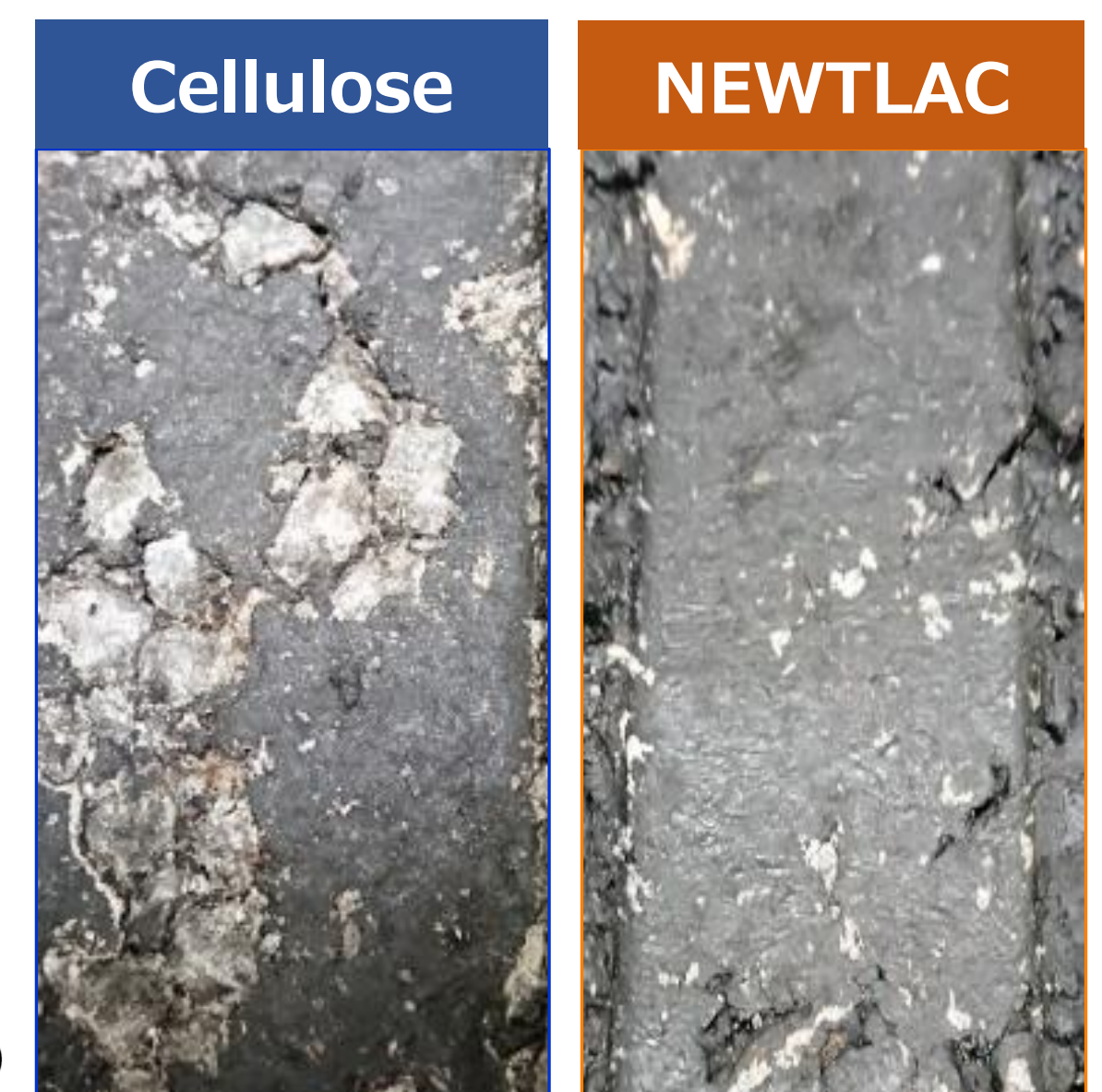
## WATER RESISTANCE

● durability test with repeated running under water immersion conditions

[Condition]  
Water immersion 60°C  
Iron wheel



Test piece after running



Enhanced water resistance, achieved longer pavement life

## Track Records



Public road: Aomori, Japan in 2022



Public road: Hokkaido, Japan in 2022

The information and recommendations in this publication are to the best of our knowledge reliable. However, nothing herein is to be construed as a warranty or representation. Users should make their own tests to determine the applicability of such information or the suitability of any products for their own particular purpose. For more enquiries, please contact the following

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