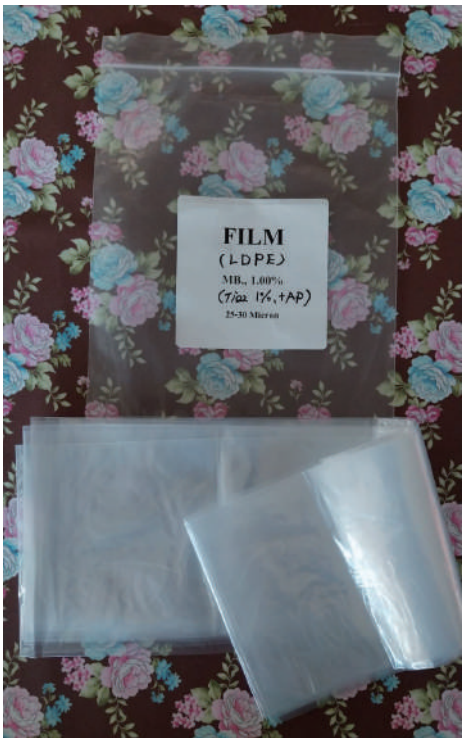
環境浄化の光触媒
NANOBEST®
可視光応答型アパタイト被覆二酸化チタン

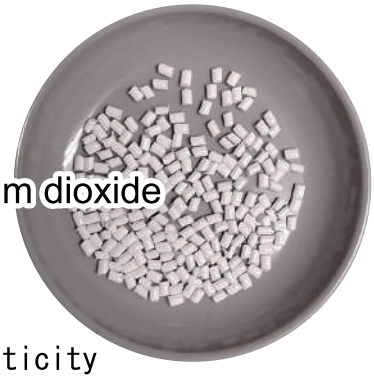
Freshness retention test using bananas



Testing begins on August 19, 2025

Photocatalytic LDPE
Freshness Preservation Bag
with 1% Apatite-Coated Titanium Dioxide
Incorporated

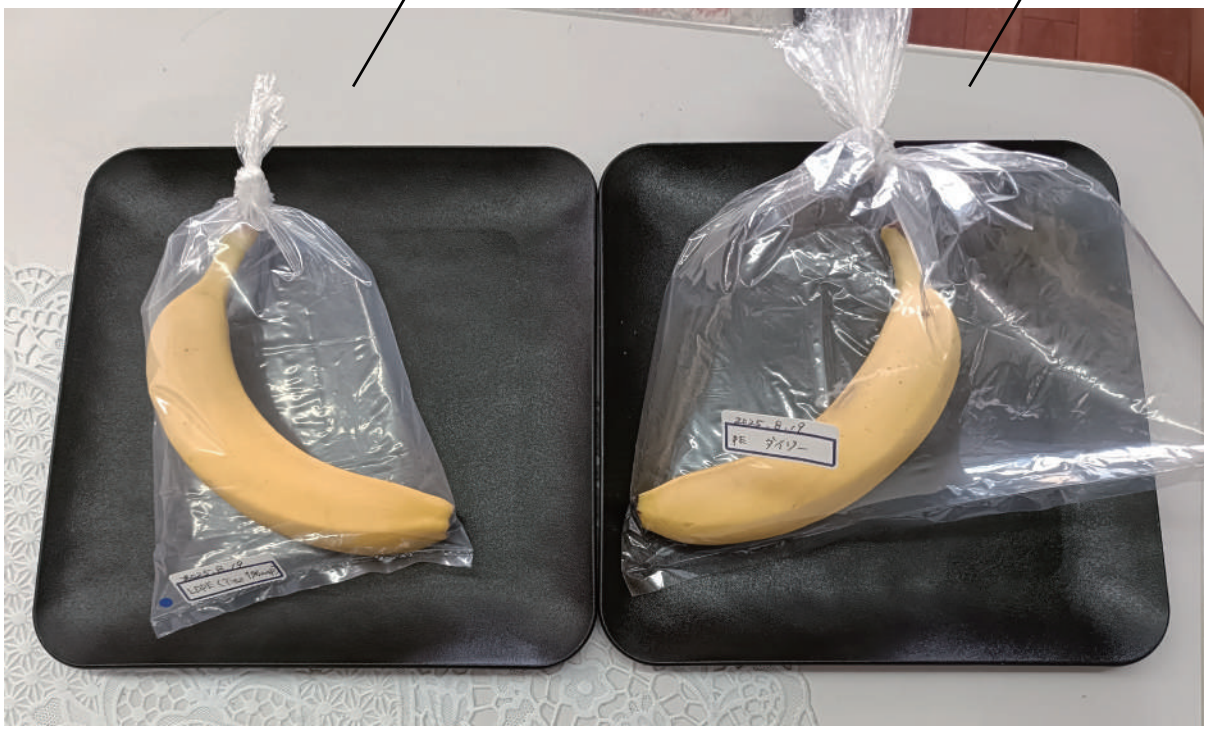
Masterbatch
Apatite-coated titanium dioxide



Verification of elasticity

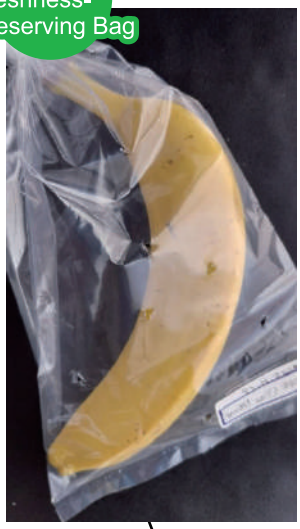
Photocatalyst
Freshness-Preserving Bag

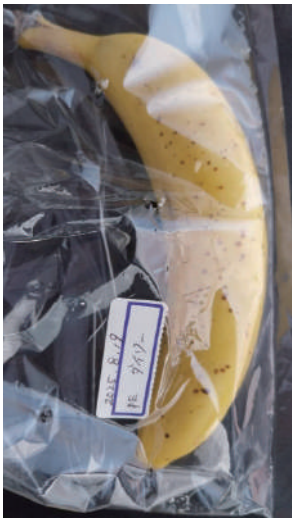
Standard
LDPE food bags



August 21: Day 3

Photocatalyst Freshness-Preserving Bag





Bananas placed in LDPE bags containing our apatite-coated titanium dioxideblended at 1% concentrationshowed no deterioration whatsoever from their original state.

August 24: Day 6

Photocatalyst Freshness-Preserving Bag

In standard LDPE bags, numerous sugar spots (ripening) appear on the surface of bananas as they oxidize and turn black.

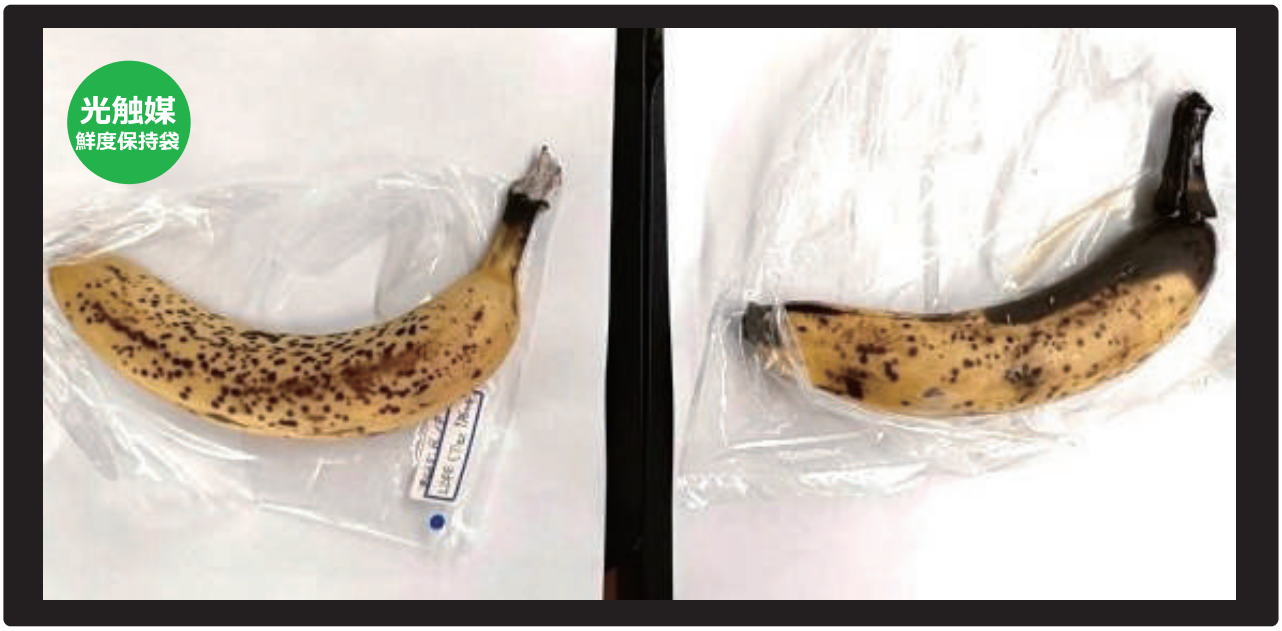
Photocatalyst Freshness-Preserving Bag

August 29: Day 11

Final day confirmation of freshness retention test using bananas

The rot has progressed, and liquid is dripping out.A foul odor is developing,
and insects are beginning to appear.

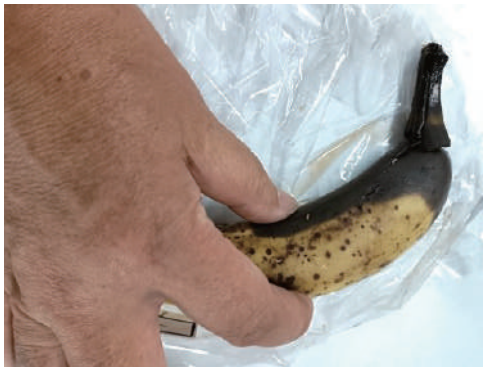
Test results after leaving at room temperature for approximately 10 days



This photocatalytic masterbatch incorporates our apatite-coated titanium dioxide, leveraging the bactericidal effect of apatite's adsorbent titanium dioxide.It adsorbs ethylene produced during decay and decomposes it using titanium dioxide.

Verification of elasticity

Still hard



Very soft, with a high moisture content in the skin.

Peel the banana skin to check the inside

It's hardly deteriorated and can be eaten normally.

It is spoiled and infested with fruit flies; it is not in a condition to be eaten.