

Oil Control Water-Soluble Emollient WILBRIDE™ BS-03



1 What is WILBRIDE™ BS-03

Concept

Oil control water-soluble emollient giving both filmy and fresh feeling

Appearance

Transparent and colorless liquid

INCI

PPG-7-BUTETH-10

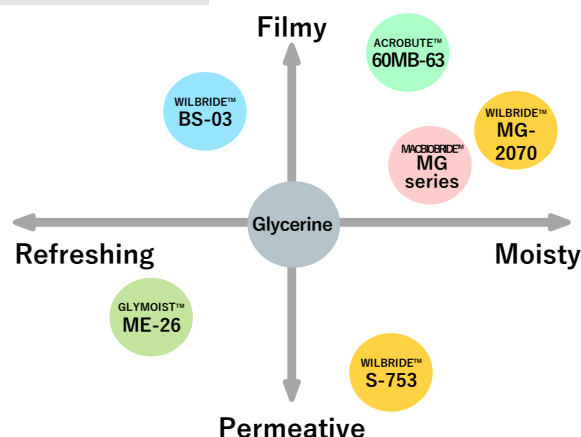
Chinese INCI

PPG-7-丁醇聚醚-10

2 Features of WILBRIDE™ BS-03

- ① New texture that combines "filmy" and "refreshing" feeling
- ② Control facial shine and add glow
- ③ High moisturizing effect
- ④ Using bio-based butanol as raw material

【Texture Map】

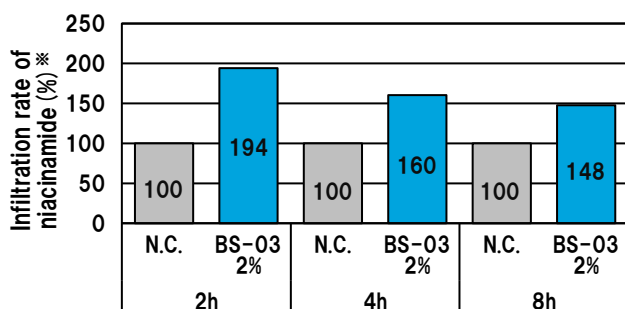


3 Infiltration promotion effect for active ingredient

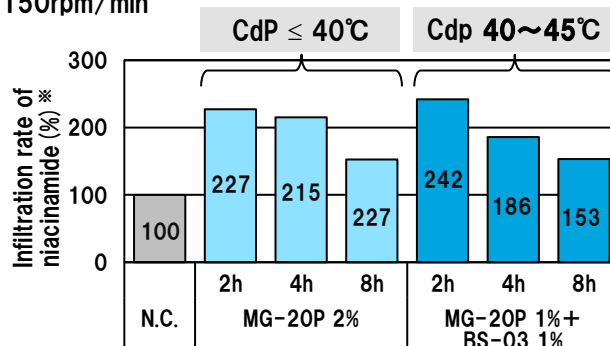
● Measurement method

1. Donar-fluid (including 5% niacinamide+WILBRIDE™ BS-03/MACBIOBRIDE™ MG-20P) and Receptor-fluid (Phosphate buffer solution: pH7.2) were prepared.
2. Active ingredient was infiltrated to receptor-fluid from donor-fluid through artificial membrane.
3. Sampled receptor-fluid at the point of a 2, 4, 8 hours from starting penetration.
4. Penetration rate was calculated from niacinamide concentration measured by HPLC.

● Measurement condition : Temp. 37℃、Mixing speed 150rpm/min



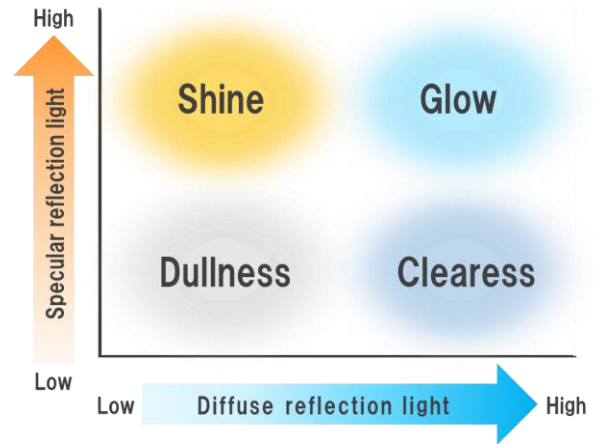
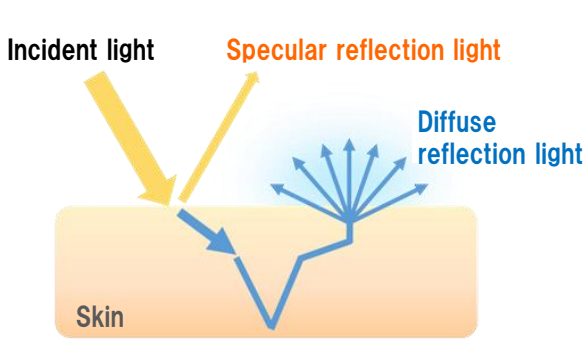
WILBRIDE™ BS-03 promotes infiltration of niacinamide



Cdp* and texture can be controlled by using with another materials

4 Anti oily-shine and add glow effect

【The effects of light reflection on skin impression】



【Anti oily-shine effect】

● Measurement Method

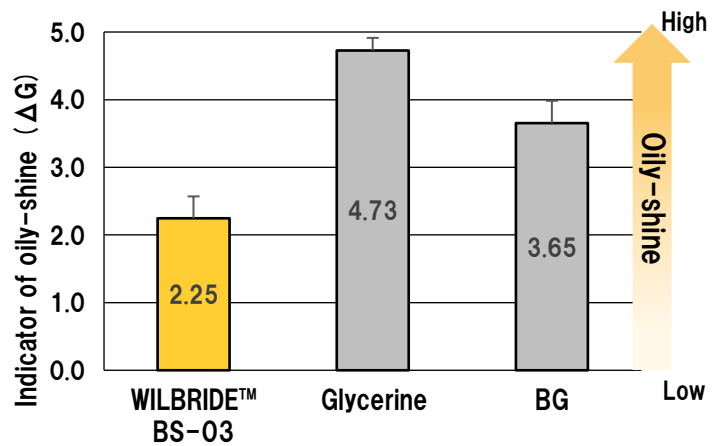
1. Apply 10mg of 5% moisturizer aqueous solution to artificial-skin.
2. Apply 10uL of oleic acid over the moisturizer.
3. After 60min, Measure the difference (ΔG) in specular reflected light before and after application.

● Measurement Condition

Instruments: Glossometer GL200

(Courage+Khazaka electronic GmbH)

Temp. : 25°C



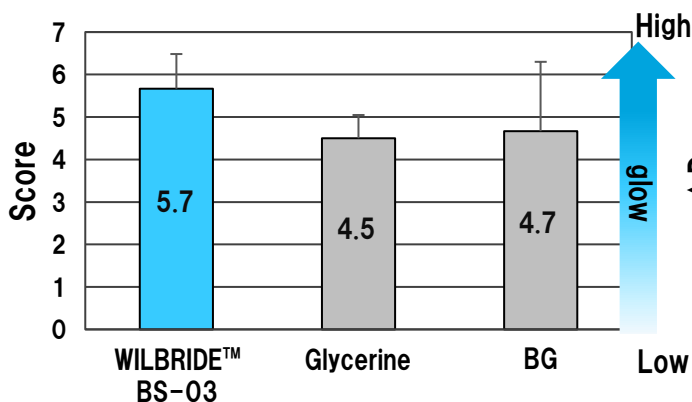
WILBRIDE™ BS-03 reduces oily-shine by cutting specular reflection light

【Add glow effect】

(1) Sensory evaluation

● Measurement Method

One drop of a 10% aqueous solution of each moisturizer was spread on the arm with a dropper, and the glow score was evaluated with ion-exchanged water as 4 points (n=6)



(2) Measurement of diffuse reflection

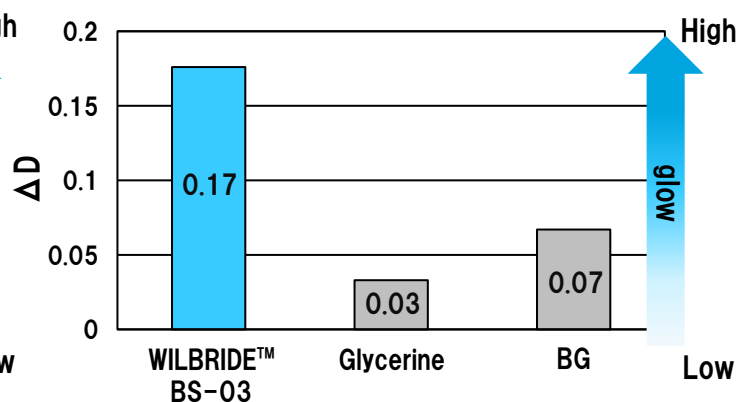
● Measurement Method

30 μ l of a 10% aqueous solution of each moisturizer was applied on the arm, and increment of diffuse reflection value before and after application (ΔD) was calculated.

Indicator of glow : $\Delta D = D_{\text{after}} - D_{\text{before}}$

● Measurement Instrument : Glossometer GL200

(Courage+Khazaka electronic GmbH)



WILBRIDE™ BS-03 adds glow by enhancing diffuse reflection light

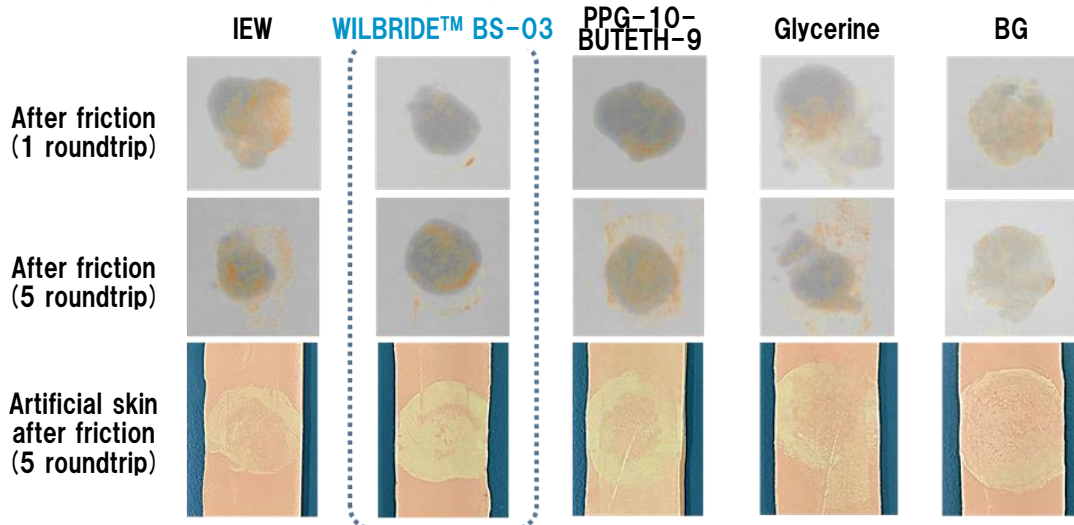
5 Makeup fixing effect

● Measurement Method

1. 100uL of 5% aqueous solution of each sample and 30mg of liquid foundation was over-laid to artificial skin, and stand at room temperature for 30 mins.
2. After adding 10uL of oleic acid, cover the artificial skin with paper and rub the surface with a load of 2N using a friction tester. (Adding oleic acid→ Friction×1 roundtrip→Adding more oleic acid→Friction×5 roundtrips)
3. Confirmed both the smudge of makeup on artificial skin and the transference of makeup to the paper visually.

● Measurement Condition

Instrument: AB-301 Friction tester (TESTER SANGYO CO., LTD.)



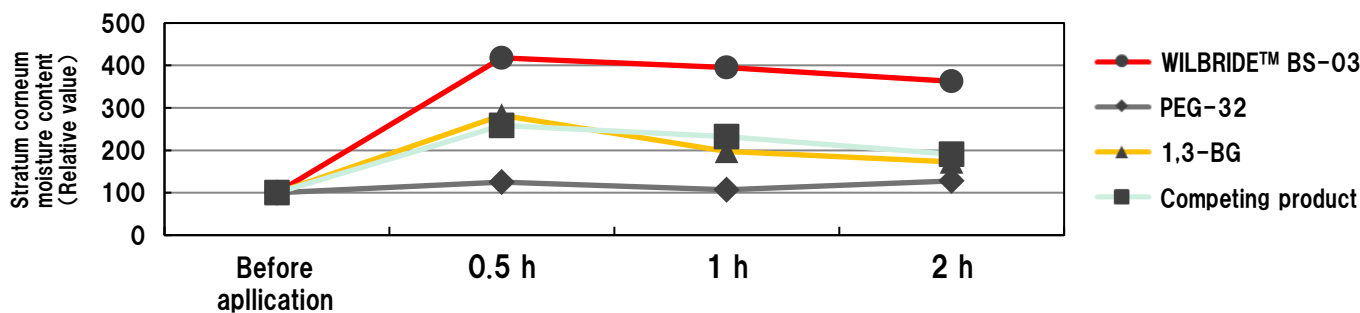
WILBRIDE™ BS-03 prevents makeup from smudging caused by sebum

6 Moisturizing Effect

● Measurement Method

1. After washing and acclimation (10mins) of inner of the upper arm, stratum corneum moisture content was measured by SKICON-200EX.
2. Applied 5% of each sample aqueous solution to the arm, and stratum corneum moisture content was measured after 0.5, 1, 2 hrs from application.

● Measurement Instrument : SKICON-200EX-USB (YAYOI CO., LTD.)



WILBRIDE™ BS-03 increases stratum corneum moisture content

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Head Office

Yebisu Garden Place Tower, 20-3 Ebisu 4-chome, Shibuya-ku, Tokyo 150-6012, Japan

TEL : +81-3-5424-6700 URL : <http://www.nof.co.jp/>

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