

Test Report



Applicant:

Name :
Address :

Sample Description:

Sample No. : MO6115, MO8512
Sample Name : Sunscreen Lotion
Physical State : White cream
Sample Quantity : 3

Reference:

NF EN ISO 24443:2012-08 Determination of sunscreen UVA photoprotection in vitro

Test Result:

According to the test result, the PFA value of sample is "16", "PA++++".



To be continued

Authorized By:

For Intertek Testing Services Ltd., Shanghai

Shazza Shao

Shazza Shao

Supervisor



Test Item

In vitro determination of sunscreen UVA protection

Reference

NF EN ISO 24443:2012-08 Determination of sunscreen UVA photoprotection in vitro

According to the requirements of *NF EN ISO 24443:2012-08 Determination of sunscreen UVA photoprotection in vitro*, with the dosage of 1.3 mg/cm², using special syringe to suck up a certain volume of test sample or standard sunscreen, pointing uniformly on the surface of PMMA, applying product with naked finger so that it can be separated evenly on the surface of PMMA. The whole board is protected from light and dry for at least 30min and no more than 60 min. Then UV 2000S instrument is used to measure the transmittance of ultraviolet light, and each sample is repeated for 4 test plates, each plate is tested for 5 points, the SPF values, C values and irradiation dose of the standard sunscreen and the sample are recorded, respectively. After the test, putting the PMMA plate, which is applied with sample, to SOL-UV-6 solar simulator (keep samples within the range of 25 °C to 35 °C) to expose, and stop irradiation when the irradiation dose reaches the dose recorded above and recorded the irradiation time and the corresponding values of irradiance meter, and then using the UV 2000S instrument to measure the transmittance of ultraviolet light, each sample is repeated for 4 test plates, each plate is tested for 5 points, and the PFA values of the standard sunscreen and the sample are recorded, respectively.



Material

- 1、 Testing sample: Sunscreen Lotion
- 2、 In vitro SPF value (Customer didn't provide SPF value in vivo and SPF value in vitro is used to calculate PFA value instead of SPF value in vivo): 67
- 3、 Standard control: S2 Reference Sunscreen (COSMETECH LABORATORIES, INC. 3102Q)
- 4、 PMMA plate: HD6TM molded PMMA plates (HelioScreen, Creil, France)
- 5、 Instrument: UV 2000S UV transmittance analyzer (Labsphere Co., Ltd.), SOL-UV-6 solar simulator (Newport)

Test Result(s)

The PFA values of S2 Reference Sunscreen and sample

No.	Sample	S2 Reference Sunscreen (PFA12.7±2)
1	16.56	12.35
2	16.32	13.00
3	16.60	11.12
4	15.27	14.37
Average ± SD	16.19±0.62	12.71±1.35
CI%	6.13%	16.95%

Date Sample Received: Feb.01,2023

Testing Period: Feb.07,2023

End of report

The statements of conformity reported have considered the decision rule agreed, namely that Intertek have taken account of measurement uncertainty as calculated by Intertek, and applied according to ILAC-G8/09:2019 (Non-binary acceptance based on guard band w = U) except designation from the customer, regulation or test specification. This decision rule only applies to the numeric test results.

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Test Report

Applicant:

Name :

Address :

Sample Description:

Sample No. : MO6115, MO8512

Sample Name : Sunscreen Lotion

Physical State : White cream

Sample Quantity : 3

Predictive SPF Value : 30

Test Item:

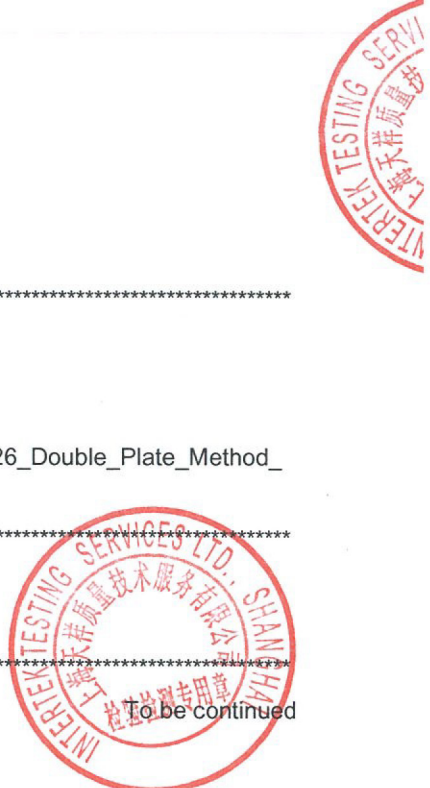
In vitro determination of the sun protection factor (SPF)

Reference:

Colipa -Cosmetics Europe - No 26 Use of Alternative Methods to ISO24444-2019: No_26_Double_Plate_Method_Protocol.

Test Result:

According to the test result, the SPF value of the sample is "67".



Authorized By:

For Intertek Testing Services Ltd., Shanghai

Shazza Shao

Shazza Shao

Supervisor



Test Item

In vitro determination of the sun protection factor (SPF)

Reference

Colipa -Cosmetics Europe - No 26 Use of Alternative Methods to ISO24444-2019: No_26_Double_Plate_Method_Protocol

Test Procedure

1. Preparation of reagents and materials: Store the plates (opened or removed plastic bag) and product, in the dark, at 27(±2) °C for at least twelve hours before the start of the test.
2. Apply the product with finger. 1.3mg/cm²(±1.6%) of product is applied to each moulded plate and 1.2mg/cm²(±1.5%) of product is applied to each sandblasted plate. (Reference: ISO 24443:2021)
3. Measurement of initial absorbance using two plate types (290 nm to 400 nm).
4. Calculation of initial in vitro SPF.
5. Calculation of irradiation dose (based on initial in vitro SPF).
6. Irradiation with calculated dose.
7. Measurement of final post-irradiation absorbance using two plate types (290 nm to 400 nm).
8. Calculation of final in vitro SPF.

Material

1. Testing sample: Sunscreen Lotion
2. Standard control: P8 Reference Sunscreen
3. PMMA plate: HD6TM molded PMMA plates (HelioScreen, Creil, France), sand-blasted SB6TM PMMA plates (HelioScreen, Creil, France)
4. Instrument: UV 2000S UV transmittance analyzer (Labsphere Co., Ltd.), SOL-UV-6 solar simulator (Newport)

Test Result(s)

Final in vitro SPF value			
PMMA No.	M	S	M+S
1	61.8	60.5	66.9
2	55.3	59.8	64.6
3	60.1	64.4	69.8
MEAN	59.1	61.6	67.1
SD	3.4	2.5	2.6
CI	/	/	9.6%

Note: M refers to HD6TM molded PMMA(Batch No.:0466) and S refers to sand-blasted SB6TM PMMA(Batch No.:0194).

Date Sample Received: Feb.01,2023

Testing Period: Feb.06,2023

End of report

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SHANGHAI