

SUNSCREENS YOU CAN TRUST

Our strict tests have revealed seven Best Buy sunscreens – as well as three Don't Buys from big brands Malibu, Piz Buin and Hawaiian Tropic

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Using sunscreen can get expensive – the recommended amount for a single application can use up a sixth of a 200ml bottle. And you're meant to reapply every two hours, which means two people could easily use up an entire bottle in a day. But we've found that spending more doesn't guarantee better protection. In fact, we tested five products costing £2 per 100ml or less and all of them passed our strict tests. By contrast, at £11.33 per 100ml, one of our Don't Buys costs nine times as much as the cheapest Best Buy.

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Testing for UVA and UVB

The sunscreens we tested are designed to protect against two types of ultraviolet radiation: UVA and UVB. Both types have been linked to skin cancer, although UVB is the main cause of sunburn and UVA has been linked to premature ageing of the skin. The Sun Protection Factor (SPF) indicates the amount of UVB protection sunscreens offer. We tested products with the SPF30 claim, which is a bestseller in the UK. Our tests verified whether each sunscreen met the claimed SPF and the EU recommendation for UVA protection.

Easy to apply

Sunscreens that leave skin feeling oily or sticky can be offputting, so we also asked a panel of testers to try each product. Between 11 and 13 testers rated each sunscreen on how easy it was to get out of the bottle, as well as how each one felt, looked and smelled on the skin. We haven't awarded the sunscreens total test scores, but instead – as you can see from our table on p65 – we've awarded a star rating based on our panel test, and have stated whether they passed or failed our tests.

Twelve SPF30 sunscreens passed our SPF and UVA tests, so you can use these in the sun with confidence. Of those 12, seven products both met their SPF claim and scored at least four stars in our application test, so we've made these the Best Buys you can see above. ●

LAB SECRETS



Yvette Fletcher,
senior
researcher

Testing sunscreens doesn't entail a trip to the tropics, but it doesn't involve test tubes either. We test sunscreens to strict British standards (BS EN ISO 24444:2010 for SPF and BS EN ISO 24443:2012 for UVA) and use real people in our SPF tests (see p64).

We apply each sunscreen to a small area on a person's back, then shine a lamp that simulates UVB sunlight onto it. We note when the skin turns red, and compare the smallest dose of UVB light required to turn skin red – both with and without the sunscreen – to determine the product's SPF.

As well as exposure to the light, our participants are also subjected to hours of boredom as they lay still on their stomachs. Distraction could lead to them moving, so there's no watching television or reading while the UV lamp shines on their backs. But their patience is an essential part of this important test that allows us all to relax in the sun on our holidays.



Don't Buys

**DON'T
BUY**

The products we tested from these three big brands are all Don't Buys because they failed our SPF test.

The Malibu product also failed our UVA test. Turn to p64 to find out more about our findings.



Why these Hawaiian Tropic, Piz Buin and Malibu sunscreens are Don't Buys

Three of the sunscreens didn't pass our SPF tests, including two of the more expensive products we tested. We don't think you can rely on these sunscreens to provide the level of protection you'd expect, so we've named these products Don't Buys

All of the products we tested had a claimed SPF of 30, but our tests found that three sunscreens (pictured right) had results lower than SPF 25. We retested a second batch of each sunscreen, but these still didn't pass our tests and are Which? Don't Buys.

Our verdict

Piz Buin Ultra Light Dry Touch Sun Fluid SPF30, 150ml, and Hawaiian Tropic Satin Protection Ultra Radiance Sun Lotion SPF30, 200ml, twice failed our SPF test.

Malibu Protective Lotion SPF30, 200ml, twice failed both our SPF test and our UVA protection test. The EU recommendation is for sunscreens to offer a UVA protection factor that is a third of their SPF to be considered effective protection against UVA. In our test, the SPF30 Malibu's UVA protection factor was below 10, so it did not achieve this. All of the other sunscreens we tested passed our UVA test.

What's more, our results suggest that paying more doesn't guarantee greater protection. The Piz Buin Don't Buy is the most expensive sunscreen we tested, at £11.33 per 100ml. The Hawaiian Tropic Don't Buy is also pricey at £7 per 100ml.

A sunscreen that doesn't offer the protection it claims could expose you to a greater risk of developing sunburn than one that meets its claim, as you will be getting less protection than you think. In addition, many of us aren't applying enough sunscreen, which further reduces the level of protection we're receiving. According to the World Health

'Malibu Protective Lotion twice failed our SPF and UVA tests'

Organisation, applying a smaller quantity of any sunscreen leads to a disproportionate reduction in protection – if the quantity applied is reduced by half, protection may fall by as much as two thirds.

We recommend that you choose one of the sunscreens that passed our rigorous SPF and UVA tests – see our table, opposite – and apply it liberally to ensure you're protected from the sun this summer.

What the companies said

We alerted the companies to our findings. Hawaiian Tropic told us



Piz Buin Ultra Light Dry Touch Sun Fluid SPF30, 150ml, £16.99; Malibu Protective Lotion SPF30, 200ml, £5.99; Hawaiian Tropic Satin Protection Ultra Radiance Sun Lotion SPF30, 200ml, £13.99

that it only markets products which meet the label SPF claim and all its products are rigorously tested at an independent, well-qualified laboratory. It is confident that its test results indicate that Hawaiian Tropic Satin

Protection SPF30 exceeds the label claim and EU requirements.

Malibu told us its sunscreen was tested to the relevant Colipa (the Personal Care Association) recommendations in an independent laboratory in the UK in 2002 and that the results of its own tests proves the labelling claims it makes. It added the level of complaints about the product has been exceptionally low, with zero complaints in 2013.

Piz Buin said all of its products are assessed for safety and efficacy in compliance with EU regulations. The SPF labelling of its products is based on a package of information that considers formulation as well as rigorous testing. It is confident that Piz Buin Ultra Light Dry Touch Sun Fluid provides SPF30 protection and noted that variability in test results between laboratories is associated with the SPF test.

How we test sunscreens



A carefully measured amount of each sunscreen is applied to a small, consistently sized area on the volunteer's back. Each product is tested on 10 volunteers.



A special lamp is shone on the volunteer's back – the lamp simulates the UVB rays radiated by the sun and is used for carefully set lengths of time.



Lab assistants check for redness after the UVB exposure. The shortest amount of exposure with and without the product is compared to establish its SPF.

Sunscreen: your questions answered

Essential information to help you choose the right product and use it properly

Q How much sunscreen should I apply?

A It's very unlikely you're applying too much. The World Health Organisation recommends 35ml for the whole body – that's around seven teaspoons: one for the face/head and neck, one for each arm and each leg, and a teaspoon for your front and your back.

Q Should I use special creams for children?

A Sun creams that are specially formulated for children and babies are less likely to irritate young skin. However, sunscreen is just part of good sun sense – encouraging children to slip on a t-shirt, slop on sunscreen, slap on a hat and wrap on sunglasses is a handy way to help them remember to stay safe in the sun. Babies should be kept in the shade.

Q What about sunscreens that only need to be applied once a day?

A More and more products claim to provide sun protection for up to ten hours after a single application. However, regular reapplication will ensure adequate coverage in case you missed any bits the first time and will top up the sunscreen that comes off as you perspire.

Q Are sunscreens for sensitive skin different?

A There are two types of active ingredients in sunscreens: physical blockers and chemical absorbers. Products for sensitive skin tend to use physical blockers, which act as a screen to protect the skin. Chemical absorbers soak up UV radiation but are more likely to cause skin irritation than physical blockers. Sunscreens

can use many chemical absorbers so, rather than examine the ingredients list, simply look for a product labelled 'sensitive' or suitable for those with sensitive skin.

Q What does the UVA seal mean?

A EU recommendations state that sunscreens must offer a UVA protection factor equivalent to at least a third of their SPF. The UVA seal – a circle with 'UVA' inside – indicates that a product meets those recommendations. However, some products display another seal, the Boots star rating, which means the manufacturer claims the UVA protection is higher than the minimum required by the EU. Other products use different UVA logos, some of which conform to other countries'



standards. All but one of the products we tested met the EU recommendation (see the table below).

Q Does sunscreen go off, or can I still use the bottle that I bought last year?

A Yes, sunscreen does go off – so check the bottle for an expiry date before using it. Most of the sunscreens we tested state that they have a shelf life of between 12 and 18 months after opening. Storing sunscreen at high temperatures or in direct sunlight can decrease its shelf life, so if you took last year's sunscreen to the beach with you, stock up on a Best Buy before heading on holiday this summer.

USING THE TABLE

Best Buys are highlighted in red, Don't Buys in grey. Products are ordered alphabetically by group (Best Buys, products that passed the test and Don't Buys). Only products that passed our SPF and UVA tests and received an application rating of four stars or more are Best Buys. Don't Buys failed one or both of our SPF and UVA tests.

SPECIFICATION Price See p55. Many sunscreens are likely to be on offer over the summer. **Great Value** Best Buys that cost less than £5 per 100ml.

PERFORMANCE Application rating How well the sunscreen performed in our subjective application test. Products with five stars were judged to be the nicest to use overall.

SPF Products that passed (those with a tick) had a tested SPF of 30 or greater. **UVA** Products that passed (those with a tick) had a tested UVAPF of 10 or greater, meeting the EU recommendation. **Overall pass** A tick means the product passed our SPF and UVA tests.



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