Protection Class	SPF
low	6-10
medium	15-25
high	30-50
very high	50+

- high protection with SPF 30
- UVA protection: 24 / highest category (5 "Stars") of the Boots rating system



- suitable for very sensitive skin (photodermatologically tested)
- very water-resistant
- modern system of photostable UV filters
- with vitamin E
- perfume- and fragrance-free











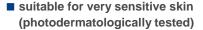
Skin protection cream with high protection against UVA, UVB and UVC radiation



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PRODUCT PROPERTIES / APPLICATION AREA:

PHYSIO UV 30 SUN is a practical and highly-effective skin protection cream that increases the human skin's natural self-protection time by the factor 30 in the UVB range. The protection in the UVA range exceeds the requirements of a balanced UV protection (UVAPF at least 1/3 of UVBPF) considerably. The UVAPF is 24 (UVAPF = 4/5 of UVBPF) and, thus, fulfils the requirements of the highest category of the British Boots Star rating. Especially outdoor workers should pay attention to a high UVA protection factor, as UVA radiation penetrates even clouds and window panes to a large extent. In addition, the product provides protection against UVC radiation, e.g. from welding operations. However, for metal processing where surface treatment and paint work are necessary, we recommend to choose a special product against artificial UVC radiation in order to avoid defects in paint work. For this purpose, we can offer suitable solutions as well. Please contact us for further information.

The high and consistent protection is achieved by a modern and photostable UV filter system. PHYSIO UV 30 SUN is suitable for outdoor work places with intensive natural UV radiation. PHYSIO UV 30 SUN is very water-resistant and even maintains most of the light protection when sweating heavily or when working in an aqueous environment. The broad protective effect is achieved by a modern and balanced combination of photostable UV filters. The formulation can contribute to cellular protection against radicals which evolve under UV light and reduces premature skin aging caused by sunlight.

APPLICATION:

Before work or rather before intensive light exposure, apply PHYSIO UV 30 SUN evenly on the dry and clean skin. The amount of cream to use depends on the application surface, e.g. a hazelnut-sized amount of cream for the hands. Apply generously as small amounts only offer low protection. In order to maintain the UV protection, apply several times. Especially after washing, the application of PHYSIO UV 30 SUN must be repeated. However, the renewed application does not extend the period of protection, but rather re-establishes the old protection status which has diminished in the meantime. Principally, PHYSIO UV 30 SUN should be reapplied every two hours.

Please have a look at the video "Applying Creams": https://www.youtube.com/watch?v=TJ-ynm-EPIo&t=6s



Please note: The application of UV protection agents does not exonerate from the application duty of other prescribed precautionary measures. Intensive midday sun should be avoided. Even UV protection agents with a high SPF do not provide complete protection against UV radiation.

PRODUCT DESCRIPTION:

White, non-greasy cream, O/W emulsion. With modern UV-filter system and titanium dioxide (silicone coated). Perfume- and fragrance-free.



Skin protection cream with high protection against UVA, UVB and UVC radiation

ORDERING DATA:

20 ml tube: BSW No. 14326004 50 x 20 ml tube = 1 PU¹⁾

100 ml tube: BSW No. 14326001 12 x 100 ml tube = 1 PU¹⁾

1) PU = packaging unit

PRODUCT EVALUATION SHEET:

A product evaluation sheet can be downloaded from https://www.physioderm.com/en/downloads/test-sheets or is available on request.

DERMATOLOGICAL COMPATIBILITY:

PHYSIO UV 30 SUN's photo-dermatological compatibility has been tested on several test persons in a clinical research study. None of the test persons showed any photoallergic or phototoxic reactions. Therefore, the product is suitable for very sensitive skin as well.

EFFICIENCY TEST:

PHYSIO UV 30 SUN's efficiency has been proven with regard to:

- 1. UVB protection factor according to international norm EN ISO 24444:2010 [1]
- 2. UVA protection factor according to ISO 24443 [2]
- 3. UVC protection factor referring to ISO 24443 [2]
- Water resistance according to COLIPA method 2005 of the EU cosmetics manufacturers [3]

1. UVB protection factor and sunburn prevention

The protection factor indicates by which factor the skin's self-protection time is extended when applying the protection cream. The self-protection time is the period of time during which the skin is definitely not damaged when exposed to UV radiation (e.g. redness or even sunburn (dermatitis solaris)). The self-protection time depends on the skin phototype. Especially fair-skinned people have a self-protection time of only 10 minutes, people with sun-sensitive skin about 20 minutes, people with a normal tanning ability approx. 30 minutes. People with medium dark skin (Mediterranean type) have a longer self-protection time. Tanned skin has a slightly longer self-protection time than pale skin. The average protection factor evaluated for PHYSIO UV 30 SUN is 43,7 and, thus, meets the criteria for a high SPF of 30 (Chart 1).

2. UVA protection factor against skin aging and light allergies

The UVA protection factor should be at least 1/3 of the product's protection factor. Longwave UVA radiation penetrates deeper into the skin and is one of the main reasons for light-induced skin aging and different forms of so called "sun allergies". The wavelength of the sun's UV spectrum is 290-400 nm, the UVA spectrum is 320-400 nm, the UVB spectrum is 290-320 nm. Modern sun protection agents cover even a wider UV range and especially the UVA protection factor becomes more and more important. The UVA protection factor (UVAPF) evaluated for PHYSIO UV 30 SUN is 23,54 and, thus, almost on the same level as the indicated UVB protection factor.

3. UVC protection factor e.g. for welding

Natural UVC radiation is blocked by the ozone layer. However, UVC radiation emerges from other sources as well, e.g. from welding. The UVC protection factor is evaluated referring to ISO 24443:2012, which determines the evaluation of the UVA protection factor. **PHYSIO UV 30 SUN has a high UVC protection factor** (Chart 2).



Skin protection cream with high protection against UVA, UVB and UVC radiation

4. Very water-resistant

The water resistance according to the European industry standard COLIPA is evaluated by means of a realistic and controlled bathing test (4 times, 20 minutes each) [3]. After bathing, the SPF needs to be at least 50 % and, thus, maintain sufficient protection in case of e.g. intensive sweating or bathing. For PHYSIO UV 30 SUN an average of 74 % has been evaluated (see chart 1). Nevertheless, PHYSIO UV 30 SUN should be reapplied especially after bathing or heavy sweating in order to increase the sun-protection safety.

References / Norms:

- 1. EN ISO 24444:2010 Cosmetics Sun protection test methods In vivo determination of the sun protection factor (SPF)
- 2. DIN EN ISO 24443:2013-05: In vitro Bestimmung des UV-A-Schutzes von Sonnenschutzmitteln (ISO 24443:2012); Deutsche Fassung EN ISO 24443:2012
- 3. COLIPA Guidelines for Evaluating Sun Product Water Resistance 2005

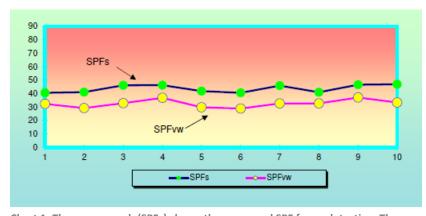


Chart 1: The upper graph (SPFs) shows the measured SPF for each testing. The other graph (SPFvw) shows the SPF after water contact (four times, 20 minutes each). Afterwards, the average SPF is still approx. 74% of the initial value.

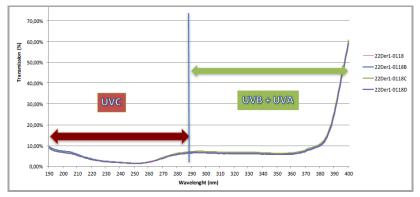


Chart 2: Transmission rates in each wavelength range. In the UVC spectrum, 98% of radiation is filtered out.



Skin protection cream with high protection against UVA, UVB and UVC radiation

PRODUCT QUALITY:

The product is manufactured according to GMP (GOOD MANUFACTURING PRACTICE) requirements. The bacteria count is microbiologically tested on a regular basis and is under 100 bacteria per gram.

FIRST AID:

If PHYSIO UV 30 SUN accidentally gets into your eyes, rinse immediately with plenty of lukewarm water. If a burning sensation still persists, consult an eye doctor as measure of precaution.

STORAGE INSTRUCTIONS:

PHYSIO UV 30 SUN will keep for at least 30 months (from date of manufacture) if stored unopened at room temperature in the original packaging. The Period After Opening (PAO) is indicated on each tube / bottle.

STATUTORY REGULATIONS:

PHYSIO UV 30 SUN is subject to the EC Cosmetics Directive, but not to the German Chemicals Act or the Hazardous Substances Order. Moreover, skin protection products are received as part of the Personal Protective Equipment (PPE).

ENVIRONMENT:

All tubes are made of polyethylene and after being completely emptied, they can be disposed of with other polyethylene waste. Packaging is labeled accordingly.

COMPOSITION ACCORDING TO INCI*:

AQUA, C12-15 ALKYL BENZOATE, ETHYLHEXYL SALICYLATE, GLYCERIN, BUTYL METHOXYDIBENZOYLMETHANE, DICAPRYLYL ETHER, CETYL ALCOHOL, GLYCERYL STEARATE, ETHYLHEXYL TRIAZONE, BIS-ETHYLHEXYLOXYPHENOL METHOXYPHENYL TRIAZINE, DIETHYLHEXYL BUTAMIDO TRIAZONE, BUTYROSPERMUM PARKII BUTTER, SODIUM STEAROYL GLUTAMATE, PHENYLBENZIMIDAZOLE SULFONIC ACID, TOCOPHERYL ACETATE, XANTHAN GUM, CAPRYLYL GLYCOL, DECYLENE GLYCOL, ETHYLHEXYLGLYCERIN, SODIUM HYDROXIDE, PIROCTONE OLAMINE, TITANIUM DIOXIDE, SILVER CHLORIDE, TOCOPHEROL, DIETHYLHEXYL SODIUM SULFOSUCCINATE, PROPYLENE GLYCOL.

Our information and recommendations correspond to our current state of experience. They are not binding and do neither imply any warranty nor do they establish a contractual relationship. We reserve the right of modifications in line with technological progress and further development of our products. We request our customers to conduct their own tests on our products for fitness for purpose.

^{* (}International Nomenclature Cosmetic Ingredients)