

Q What is X-Patch made of?

▪ X-Patch consists of two functional layers of ultra thin and flexible film, with the upper layer providing complete UV protection and the lower layer containing adhesive and active ingredients that enable it to adhere perfectly to the skin.

Q What is UPF factor?

- UPF stands for ultraviolet protection factor of fabric.
- The UPF rate indicates how much of the sun's UV radiation (both UVB & UVA) is absorbed by the fabric.
- A fabric with a UPF rating of 50 only allows 1/50th of the sun's UV radiation to pass through it. This means that this fabric will reduce your skin's UV radiation exposure by 50 times (98% UV block) in areas where the skin is protected by the fabric.

▪ UPF Range & Percentage of UV Blocked

Protection Rating	UPF Range	UV Blocked %
Good	15~24	93.3~95.9
Very Good	25~39	96.0~97.4
Excellent	40~50+	97.5~98.0+

Q What is the difference, UPF vs SPF?

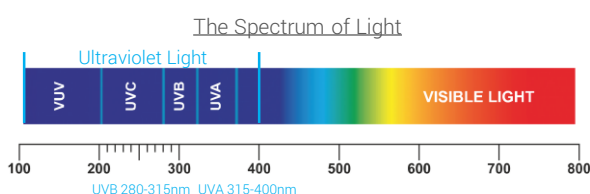
UPF	SPF
Ultraviolet Protection Factor	Sun Protection Factor
Measures effectiveness of sun protective fabric	Measures effectiveness of sunscreens
Provides both UVA & UVB protection	Provides only UVB protection
A UPF of 50 blocks out 49/50 (98%) of UV rays when worn	A SPF of 15 prolongs your protection 15 times the time it takes to burn

Q Sun Protection Ratings, SPF vs PA?

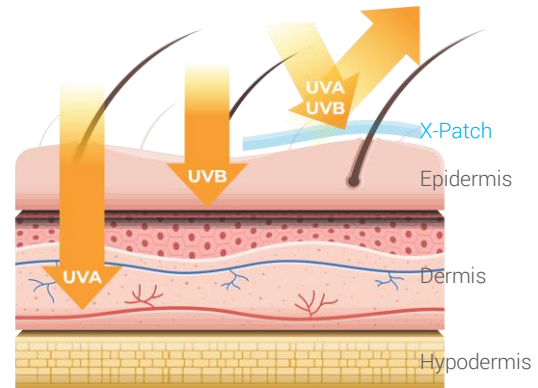
- SPF stands for Sun Protection Factor; it's like the superhero shield that protects your skin from UVB rays.
- PA stands for Protection Grade of UVA, aka the defender against UVA rays.

SPF	10	15	30	50
Total Protection	90%	93%	97%	98%
Re Application	1~2 hours	1~2 hours	2 hours	2~3 hours
Protection Rating	low	moderate	medium	high
PA	PA+	PA++	PA+++	PA+++/+

Q What is the different, UVA vs UVB?



- Ultraviolet B (UVB) has a shorter wavelength (280-315nm). It is associated with sunburns, hyperpigmentation, melasma, freckles.
- Ultraviolet A (UVA) has a longer wavelength (315-400nm). It is associated with premature aging, oxidative stress and skin cancer risks.
- About 95 percent of the UV rays that reach the ground are UVA rays. The other 5 percent of UV rays are UVB.



A X-Patch : UPF 50+, UVB 99.91%, UVA 94.87%

▪ The test results conducted by SGS revealed that the UPF is rated as 50+, indicating an excellent grade. Additionally, the UVB blocking rate was determined to be 99.91%, and the UVA blocking rate was 94.87%, demonstrating the highest level of UV protection.

SGS Tested		Dry evaluation
Ultraviolet Protection Factor (UPF) :	304.32	
Standard Deviation :	5.20	
Rated UPF :	50+	
Protection Category :	Excellent	
Percent Transmittance, T (UV-A) :	5.13	
Percent Transmittance, T (UV-B) :	0.09	
The Percent Blocking, UV-A :	94.87	
The Percent Blocking, UV-B :	99.91	

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Q What is WVTR?

- WVTR (Water Vapor Transmission Rate) is a measure of the passage of water vapor through a substance and the permeability for vapor barriers. Values are expressed in g/m²/24 hr. Common polymer packaging films WVTR is 4(PP)~18(PET).
- In fabric, WVTR as a measure of breathability has contributed to greater comfort for wearers of fabric for outdoor activity.
- Higher values indicates higher breathability.

A X-Patch : WVTR 141

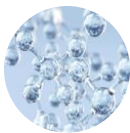
▪ The test results conducted by SGS revealed that the WVTR is rated 141, indicating higher breathability for comfortable and pleasant wearing experience.

SGS Tested	
Water Vapour Transmission, g/m²/24 h	
Test Method: ASTM E 96/E96M-2022ae1	
Sample 1	141.2
Sample 2	141.1
Sample 3	141.2
Average	141.2

Q What active ingredients are contained in X Patch?

- Adenosine and Niacinamide are infused in X Patch.

Adenosine, a naturally occurring molecule in our bodies as adenosine triphosphate (ATP), not only provides cells with energy but also offers skin benefits. It [reduces inflammation and enhances the appearance of fine lines and wrinkles.](#)



Niacinamide is an essential vitamin B3. It helps restore cellular energy, repair damaged DNA, and [reduce the immunosuppressive effects of sun-induced UV rays.](#)



Q Why is it necessary to completely block UV rays?

- There are several reasons; prevention of skin cancer and skin ageing as well as inhibition of melanin production.
- Did you know - 80% of ageing comes from UV exposure. Wearing SPF 30-50 daily can help reduce the signs of early ageing and also help protect against skin disease and health issues. Even if it's cloudy still put your SPF on!

Q Does X Patch contain any hazardous substances?

- X Patch has been certified by SGS to undergo testing for the presence of four heavy metals, ten types of phthalates, and formaldehyde, setting the strictest standards. It has been verified that it does not contain any harmful substances.

SGS Tested



Heavy Metals

Test Items	Unit	Test Method	MDL	Results
Arsenic (As)	mg/kg	With reference to DIN EN 18711-1 : 2016, ICP-OES or ICP-MS	10	N.D.
Cadmium (Cd)	mg/kg	With reference to DIN EN 18711-1 : 2016, ICP-OES or ICP-MS	5	N.D.
Mercury (Hg)	mg/kg	With reference to DIN EN 18711-1 : 2016, ICP-OES or ICP-MS	0.1	N.D.
Total Lead (Pb)	mg/kg	With reference to CPSC-QH-E1002-08.3, ICP-OES	5	N.D.

Phthalates

Test Items	Unit	Test Method	MDL	Results
Di-(2-ethylhexyl) phthalate (DEHP)	mg/kg	With reference to CPSC-QH-C1001-09.4, GC/MS	50	N.D.
Di-n-octyl phthalate (DnOP)	mg/kg	With reference to CPSC-QH-C1001-09.4, GC/MS	50	N.D.
Dibutyl phthalate (DBP)	mg/kg	With reference to CPSC-QH-C1001-09.4, GC/MS	50	N.D.
Diisononyl phthalate (DINP)	mg/kg	With reference to CPSC-QH-C1001-09.4, GC/MS	50	N.D.
Benzyl butyl phthalate (BBP)	mg/kg	With reference to CPSC-QH-C1001-09.4, GC/MS	50	N.D.
Diisodecyl phthalate (DIDP)	mg/kg	With reference to CPSC-QH-C1001-09.4, GC/MS	50	N.D.
Diisobutyl Phthalate (DIBP)	mg/kg	With reference to CPSC-QH-C1001-09.4, GC/MS	50	N.D.
Di-n-hexyl Phthalate (DnHP)	mg/kg	With reference to CPSC-QH-C1001-09.4, GC/MS	50	N.D.
[di(C5-C8 alkyl)phthalate] linear+branched (DHP)	mg/kg	With reference to CPSC-QH-C1001-09.4, GC/MS	50	N.D.
[di(C7-C11 alkyl)phthalate] linear+branched (DHNUP)	mg/kg	With reference to CPSC-QH-C1001-09.4, GC/MS	50	N.D.

Formaldehyde

Test Items	Unit	Test Method	MDL	Results
Formaldehyde	mg/kg	With reference to ISO 14184-1, UV-vis	5	N.D.

OTE: (1) N.D. = Not detected. (<MDL)



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