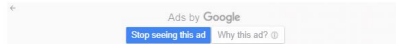


## Orient UV Sanitech Review: A UV-C Sterilizer Is Now As Important As Water And Air Purifiers In Our Homes



The **Coronavirus** pandemic has mostly been about bad news. There is no denying that. Yet, if we look closely enough, there has been a slightly more positive change that it has brought along. We humans are now more aware about general cleanliness, more worried about the virus and germs around us, the need to disinfect, wash hands and how virus and germs stick to things that we use or interact with by touch. It is perhaps just the next step in the evolution of our awareness cycle. First it was the poor-quality water quality that led us to water purifiers. Then air we breathe became unbreathable, because of pollution. So, we bought air purifiers into our homes to get some respite at least when we are indoors. And now, with the COVID terrifying everyone, it is clear that we must make disinfection and **UV-C sterilization systems** a must-have in our homes. Kids toys, our phones, the face masks we wear when outdoors, sunglasses, watches, currency notes, coins, there are innumerable number of things we pick up, touch and use every day which could be carrying virus, bacteria and germs otherwise unseen to the human eye. You can even do a second round of cleanliness assurance with your vegetables, after you've habitually washed them. This is where, the Orient UV Sanitech device made by Indian company Orient Electric Limited, is worth considering.

The Orient UV Sanitech uses the very potent Ultraviolet-C (UV-C) light that is known to disinfect the air and any surface it touches by breaking down the spread of these microorganisms. This is available in the 34-litre capacity and is priced at Rs 11,999. This joins the Philips UV-C Disinfection System in the market, which is available in three sizes—the 10-litre option which is priced at Rs 7,990 while the 15-litre capacity that costs Rs 9,990 and the flagship 30-litre capacity variant is priced at Rs 11,990.



From the outset, the Orient UV Sanitech will catch your attention with a rather interesting design. It looks a bit like a very robust safe, a tiljori more like it! What you see and touch first up is a very well-made powder coated metal body. It is important to prevent the UV-C from escaping the chamber, and the Orient UV Sanitech is so well made, that is not a possibility. You must ensure UV-C, not just in this case but always, never directly comes in contact with your skin. This thing is heavy, too and it's a good that you don't need to carry this around anywhere. That also shows how well made this is. The inner chamber can be accessed via the lid on the top. One piece of advice though, be careful to open it completely till it is securely held up before leaving the handle—this is a heavy and well-made lid and this drooping on your fingers, or your hand will not be a pleasant experience at all.

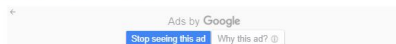


The single and simple control sits next to the lid. It is a simple enough control—on and off. It works every time you turn this on with a preset for 4 minutes of operation. Unlike some of its rivals, such as the Signify by Philips UV-C Disinfection System, this does not let you choose the duration for sterilization. In a way, that is simple enough, being an uncomplicated on or off setup. The tiny display with that shows you the countdown timer.

The inside of the Orient UV Sanitech is also made of high-quality metal, which means the reflectiveness of the UV-C within the chamber. That prevents loss of potency of the irradiation and helps make the sterilization impact that much more. The 34-litre capacity, and it is deep enough too, means you'll be able to fit in a lot of stuff inside, including most soft toys also. It is wide enough as well for a 14-inch laptop. And if its smaller objects, you can place multiple inside it though it is suggested to not keep things one on top of the other since it hides a surface that UV-C should ideally sterilize. There is a metal tray on which you can keep everything.



But why do we need a UV-C solution at home? The concept of using ultraviolet, or UV, actually comes from nature. The sun sends UV-A, UV-B and UV-C out into the solar system. Among this, natural UV-C has the most energy which also means that it can potentially be more dangerous too—and therefore the earth's atmosphere absorbs us from it. But the man-made sources of UV-C, when used in a controlled environment, can be used for potent sterilization purposes. What UV-C breaks down certain chemical bonds and scrambling the structure of the DNA, RNA and proteins, which renders the microorganism unable to multiply. That is when it is effectively dead—and your things can be considered safely sterilized. Incidentally, UV-C is used to clean water as well. The UV-C is deployed in the 100-280nm wavelength range.



A study by the National Emerging Infectious Diseases Laboratories (NEIDL) at Boston University says that UV-C light sources irradiating the surface of a material inoculated with SARS-CoV-2 (the virus that causes the COVID-19 disease) at a UV-C dose of 5mJ/cm<sup>2</sup> (exposure time 6 seconds) resulted in a 99% reduction of the SARS-CoV-2 virus present on that surface. This study determined that a UV-C dose of 22mJ/cm<sup>2</sup> results in a reduction of 99.9999% of SARS-CoV-2 virus on that surface (exposure time 25 seconds). This is true for the UV-C that the Philips UV-C Disinfection System also uses and deploys.

The Orient UV Sanitech uses low-pressure UV-C lamps which emit the radiation at 254nm. Incidentally, these are 11-watt UV lamps, and if you look closely, these are made by Philips. The way these lamps have been placed diagonally inside the chamber means that anything that you place inside it will get the UV-C envelope in its entirety.

With products such as this, where you don't see a change or a visible alteration, it may be hard for you to recognize what this does. That is the apprehension many still have about air purifiers. The quality of lamps really matters a lot in the case of these UV-C sterilizers and Philips, as we had noted earlier as well, has had more than 35 years of experience in making UV-C products for home and commercial usage. Now you need to get used to the idea of sterilizing your gadgets, accessories, your child's toys and pretty much everything that you touch daily.