

DO LED LAMPS USE ULTRAVIOLET LIGHT TO CURE GELS?

LED or light emitting diode lamps use ultraviolet light to cure gel manicures.

he simple answer is "Yes". Both LED lamps and the more traditional compact fluorescent lamps (CFL) or sometimes incorrectly called UV (ultraviolet) lamps both use ultraviolet light to cure gel manicures.

So, how does it work? Manufacturers develop gel products for specific ultraviolet wavelengths, light intensity, and curing time.

All light is categorized by wavelength ranges. Ultraviolet light is divided into 3 main ranges; UVA, UVB, UVC. For the purpose of gel manicures, we are concerned with the UVA wavelength range from 315 nanometer (nm) to 400 nm.

CFL lamps typically emit a broad wavelength ranging from 320 to 400 nm and LED lamps a narrower wavelength ranging from 370 to 380 nm. The photoinitiators for traditional gels require the use of 350 nm to cure while LED gels typically require the use of 375 nm. Photoiniators are used during the polymerization process and are developed to be activated by UVA light. This is what hardens the gel.



OC Nails Amethyst UV Shield Glove with CND Lamp. Image from OC Nails.

As you can imagine, using LED lamps not developed for a specific UV gel or using one lamp for all gel products can lead to improperly cured gel manicures.

"USE SAME VENDOR FOR LAMP AND GEL POLISH"

For this reason, we recommend you look for a salon that uses a gel lamp made by the same company as the gel product they are using. For example, if using CND Shellac then look for CND lamps. There is no such thing as a "universal" gel lamp.

There are many variables to getting a high quality gel manicure. In addition to locating a salon that uses the proper equipment we also recommend a salon with nail technicians that have product-specific vendor training.

You can often locate these salons on vendor websites or in some cases the salon may post certification.

COMPANY INFORMATION

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