Nail Art Study Report

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Gel Nails

Gel nails demystified

Many people tend to confuse acrylics and gels. They can hardly tell the difference especially between hard gels and acrylics.

Gels and acrylics family. Acrylics are special type of monomers and/or oligomers and/or polymers used to create nail enhancements. These enhancements include gels nails and acrylic (liquid and powder nails).

Liquid and powder nails are classified into a two-part system where the powder has already been polymerized to its full extent. Gel on the other hand is a homogenous product in which the monomers and oligomers (strings of monomers) stay in a semi-liquid/semi-solid state because it hasn't polymerised. Gels nails can therefore be called pre-mixed acrylics.

Gels fall in two categories, soft gels and hard gels. Hard gels are used to make nail extensions. Using a nail tool, the gel is extended past the edge of the natural nail. It is allowed to cure after which it takes the

form of artificial nails.

On the other hand, soft gels are used for gel polishes and gel-overlay services. Soft gels are too soft to create a nail extension hence preferably used in place of nail polishes.

Sorry if this still sounds confusing. In simple terms while acrylics are formed using liquid monomer and polymer powder, gels come from monomers and oligomers and are in a semi liquid/solid state. Gel comes in bottles or pots of gel and in a variety of colours.

Applying gel

Requirements :

- Orange stick or cuticle pusher
- Nail buffer
- Strile alcohol wipes or nail cleanser
- LED or UV lamp (read below for the difference between the two).

Directions :

1. Shape nails using a nail file to your desired length and shape.
2. Gently push the cuticles back with a cuticle pusher or orange stick.
3. Lightly buff the surface of each nail with a nail buffer.

4. Cleanse nails with sterile alcohol wipes or nail cleanser to rid off any oils on your nails.
5. Apply a thin coat of base coat polish to each finger cure under LED or UV light for 50 seconds.
6. Shake bottle for 30 seconds before each use. Apply a second coat and let the hand rest under light for another 50 seconds.
7. Apply gel polish colour of your choice and rest hand under light for 50 seconds.
8. Apply a second coat of gel polish colour and cure under light for 50 seconds.
9. Apply a thin coat of top coat and cure under light.
10. Wipe your nails with the sterile alcohol wipes.

Gel removal process

Requirements :

- Nail File
- Buffer
- 100% acetone
- Foil wraps
- Orangewood stick
- Hot towel

Directions :

Step 1: Roughen the surface of the nail using the course nail file.

Step 2: Dampen cotton wool with acetone and place directly on nail. Wrap foil around finger tightly.
Step 3: Wrap hot towel around hands and set for 15 minutes.
Step 4: Remove foils and begin pushing gel polish off nail with orange stick wood.
Step 5: Once gel is removed, buff nails with buffing block.

UV vs LED Nail lamps

Below is a table to differentiate between the two :

- UV (Ultra Violet) :

Cost : More affordable
Uses : Cures all types of gel polish
Average curing time : 2 minutes
Energe use : Uses more energy
Bulb life : Bulb need to be replaced after its shelf life expires. If you have 30-40 gel clients a week, the bulb should be changed every four to six months. If you have 20 gel clients a week, change your bulbs every six to eight months. If you have less than 20 gel clients a week, you can change the light annually.

Similarly, if you notice the inhibition layer on your clients nails getting thicker even after

UV vs LED Nail Lamps

What's the difference?

the correct curing time, you need to change your light.

- LED(Light Emitting Diode) :

Cost : More expensive
Uses : Cures polishes that are specifically formulated for LED technology
Average curing time : 30 seconds
Energe use : Uses less energy
Bulb life : The bulb’s shelf life is the lifetime of the lamp. In needs no replacement.

Is it advisable to use a universal type of light on all gels?

It is not advisable to use a universal light to cure all gels. The wavelength of LED on LED gel lights is much narrower than that of UV lights, and each lamp emits just the specific wavelength to cure its type of gels.

What happens when you cure the gel polish under UV or LED light?

UV curing refers to the chemical process that occurs when photoiniators within the gel itself are exposed to the UV or blue light. The energy from the light causes certain bonds in the intiatior molecules to break, forming free radicals. The radicals begin

attacking double bonds in the gel's component molecules, beginning a polymerization reaction which eventually encompasses all the molecules of the gel.

The mixture of acrylic monomers and oligomers, which combine to form long, interlocking chains during the polymerization, a process called cross-linking. These long, bonded chains make the gel hard and chemically resistant. Usually, once the nail extension and/or gel manicure has been finished, there is a residual tacky layer, referred to as 'inhibition layer', which is removed by wiping with a preferably lint-free wipe soaked in high concentrate alcohol.

Pros and cons of gel nail polish

Pros :

It dries instantly after curing. You do not risk smudging on your way home from the salon.

Gel-manicured nails can withstand lots of activities. Daily hand washing or other work activities will not affect your polish.

Gel manicure is bound to give to you a fresh look for two to four weeks. That's quite a

long time, right?

Cons :

Hygiene is paramount whenever you visit a nail salon. Also, make sure that your nail stylist is well trained in the gel technique.

If you like changing up your colour often, this style may be less preferable to you.

If not applied correctly, your gel runs the risk of lifting or peeling at the edges, giving your manicure a less appealing look.

Enjoy watch **30+ Natural Gel Nails Collection**