

PROFESSIONAL GUIDE TO HAIR COLORATION

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

THE NATURAL HAIR COLOR

Hair color is the pigmentation of hair follicle due to two types of melanin:
Eumelanin and Pheomelanin. Generally, if more eumelanin is present, the color of the hair is darker; if less eumelanin is present, the hair is lighter. Levels of melanin can vary over time causing a person's hair color to change, and it is possible to have hair follicles of more than one color.

Pheomelanin colors hair orange and yellow. Eumelanin, which has two subtypes of black or brown, determines the darkness of the hair color. A low concentration of brown eumelanin results in blond hair, whereas a higher concentration of brown eumelanin will color the hair brown. High amounts of black eumelanin result in black hair, while low concentrations give gray hair. All humans have some pheomelanin in their hair.

Pheomelanin is more chemically stable than black eumelanin, but less chemically stable than brown eumelanin, so it breaks down more slowly when oxidized. This is why bleach gives darker hair a reddish tinge during the artificial coloring process. As the pheomelanin continues to break down, the hair will gradually become orange, then yellow, and finally white.

The genetics of hair colors are not yet firmly established. According to one theory, at least two gene pairs control human hair color.

One phenotype (brown/blond) has a dominant brown allele and a recessive blond allele. A person with a brown allele will have brown hair; a person with no brown alleles will be blond. This explains why two brown-haired parents can produce a blond-haired child.

The other gene pair is a non-blond/blond pair, where the non-blond allele (which suppresses production of pheomelanin) is dominant and the allele for blond hair is recessive. A person with two copies of the blond-haired allele will have blond hair, but it will be either blondish or bright blond orange depending on whether the first gene pair gives brown or blond hair, respectively.

The two-gene model does not account for all possible shades of brown, blond, or red (for example, platinum blond versus dark blond/light brown), nor does it explain why hair color sometimes darkens as a person ages. Several gene pairs control the light versus dark hair color in a cumulative effect. A person's genotype for a multifactorial trait can interact with environment to produce varying phenotypes.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

THE NATURAL HAIR COLOR

According to the quantity of Eumelanin and Pheomelanin, there are 8 natural hair colors:

Black Hair
Black hair is the darkest and most common hair color. It has large amounts of eumelanin and is less dense than other hair colors. It can range from soft black to blue-black or jet-black.

Brown hair
Brown hair is characterized by higher levels of eumelanin and lower levels of pheomelanin.
Of the two types of eumelanin (black and brown), brown-haired people have brown eumelanin; they also usually have medium-thick strands of hair. Brown-haired people are often known as brunette.

Blond hair
Blond hair ranges from nearly white (platinum blond, tow-haired) to a dark golden blond. Strawberry blond, a mixture of blond and red hair, is a much rarer type containing the most amounts of pheomelanin.
Blond hair can have almost any proportion of pheomelanin and eumelanin, but both only in small amounts. More pheomelanin creates a more golden blond color, and more eumelanin creates an ash blond. Many children born with blond hair develop darker hair as they age, with the majority of natural blonds developing a hair color of a dark “gunmetal” hue by the time they reach middle age. Pregnancy hormones hasten this process. Natural blond hair is rare in adulthood, with some reports that only about 2% of the world’s population is naturally blond.Blond hair is most commonly found in Northern and Eastern Europeans and their descendants, but can be found spread around most of Europe. Blond hair is exceptionally rare among those without European heritage, however the Melanesians of New Guinea are one of the few non-European races and the only black race known to have a high blond hair rate. This is because the Papuans/Melanesians have the highest rate of the newly-evolved haplogroup D, at 59.4% occurrence of the approximately 6,000-year-old allele. Sub-saharan African has the lowest while the caucasian race has the second highest of 38% which may also account for their wide range of hair colors. Recent studies showed that naturally blond hair of Melanesians are caused by a recessive mutation in tyrosinase-related protein 1 (TYRP1). The mutation is at a frequency of 26% in the Solomon Islands, is absent outside of Oceania.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

THE NATURAL HAIR COLOR

Auburn hair

Auburn hair ranges along a spectrum of light to dark red-brown shades. The chemicals which cause auburn hair are eumelanin (brown) and pheomelanin (red), with a higher proportion of red-causing pheomelanin than what is found in average brown hair. It is most commonly found in individuals of Northern and Western European descent.

Chestnut hair

Chestnut Brown hair is a hair color which is developed by Alfredo Baggay. It is a reddish shade of brown hair. In contrast to auburn hair, the reddish shade of chestnut is darker. Chestnut hair is common among the native peoples with Light Brown Colored skin of Northern Luzon like Isabela.

Red hair

Red hair ranges from light strawberry blond shades to titian, copper and less commonly “true” red. It is caused by a variation in the Mclr gene and is recessive.Red hair has the highest amounts of pheomelanin, around 67%, and usually low levels of eumelanin. At 1-2% of the population, it is the least common hair color in the world. It is most prominently found in Scotland and Ireland. Scotland has the highest proportion of redheads; 13 percent of the population has red hair and approximately 40 percent carries the recessive redhead gene.

Gray and white hair

Gray or white hair—sometimes colloquially called “salt and pepper” when it is ‘peppered’ throughout dark hair—is not caused by a true gray or white pigment, but is due to a lack of pigmentation and melanin. The clear hairs appear as gray or white because of the way light reflects from the hairs. Gray hair color typically occurs naturally as people. For some people this can happen at a very young age (for example, at the age of 10). The same is true for white hair. In some cases, gray hair may be caused by thyroid deficiencies, Waardenburg syndrome or a vitamin B 12 deficiency. At some point in the human life cycle, cells that are located in the base of the hair’s follicles slow, and eventually stop producing colour/pigment.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

THE NATURAL HAIR COLOR

Color Classification

The hairdressing color chart has been invented by E.Shueller and is based on 10 numbers from the darker to the lighter level.

1 black
2 natural black
3 dark brown
4 brown
5 light brown
6 dark blond
7 blond
8 light blond
9 very light blond
10 ultra light blond

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

LIGHT AND COLOR CONCEPT

Light is a mixture of colors. The perception of a color comes from both the type and intensity of light.In order to understand better how the color is created, let's imagine a non monochrome solar light source that goes through a triangular prism. This will create a series of colors that is called color spectrum whence the white light comes from.
Light is the sum of electromagnetic waves with different wavelengths and speed.
Visible light is part of a limited wavelength's field; each one of these corresponds to a color.
An object appears yellow to our eyes because it absorbs wavelengths of light and reflects yellow, the color that appears to our eyes.The same process is true for the others colors.
Many objects only reflect one wavelength (one color) but in reality absorb a mixture of wavelengths.
The light is made visible by a sum of colors : red , orange, yellow, green, blue, and violet.
If an object appears to be white in color, this means it does not absorb any color and sends back all the light: that's why white is defined a reflecting color (non color).
If an object appears black, this mean it absorbs all the light:
that's why black's defined an absorbing color (non color).

The color concept is very subjective and not objective; each one of us has its own personal color perception. Nerve endings of eyes are sensible to the light in different ways: these nerve endings are usually called cones and rods.
Cones are sensible to an intense light and rods are sensible to low light; cones have a photosensitive pigment. Vision starts from rods and increases thanks to the cones' perception.Processed information is sent to the brain which then "sees" the color.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

HOW DO THE EYES SEE THE COLOR

The human eye and brain together translate light into color. Light receptors within the eye transmit messages to the brain, which produces the familiar sensations of color.
Newton observed that color is not inherent in objects. Rather, the surface of an object reflects some colors and absorbs all the others. We perceive only the reflected colors. Thus, red is not “in” an apple. The surface of the apple is reflecting the wavelengths we see as red and absorbing all the rest. An object appears white when it reflects all wavelengths and black when it absorbs them all.
Red, green and blue are the additive primary colors of the color spectrum. Combining balanced amounts of red, green and blue lights also produces pure white. By varying the amount of red, green and blue light, all of the colors in the visible spectrum can be produced.
Considered to be part of the brain itself, the retina is covered by millions of light-sensitive cells, some shaped like rods and some like cones. These receptors process the light into nerve impulses and pass them along to the cortex of the brain via the optic nerve.
Have you ever wondered why your peripheral vision is less sharp and colorful than your front-on vision? It’s because of the rods and cones. Rods are most highly concentrated around the edge of the retina.There are over 120 million of them in each eye. Rods transmit mostly black and white information to the brain. As rods are more sensitive to dim light than cones, you lose most color vision in dusky light and your peripheral vision is less colorful. It is the rods that help your eyes adjust when you enter a darkened room.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

HOW DO THE EYES SEE THE COLOR

Cones are concentrated in the middle of the retina, with fewer on the periphery. Six million cones in each eye transmit the higher levels of light intensity that create the sensation of color and visual sharpness. There are three types of cone-shaped cells, each sensitive to the long, medium or short wavelengths of light. These cells, working in combination with connecting nerve cells, give the brain enough information to interpret and name colors.

The human eye can perceive more variations in warmer colors than cooler ones. This is because almost 2/3 of the cones process the longer light wavelengths (reds, oranges and yellows).

About 8% of men and 1% of women have some form of color impairment. Most people with color deficiencies aren't aware that the colors they perceive as identical appear different to other people. Most still perceive color, but certain colors are transmitted to the brain differently.

The most common impairment is red and green dichromatism which causes red and green to appear indistinguishable. Other impairments affect other color pairs. People with total color blindness are very rare.

Birds, fish and many other mammals perceive the full spectrum. Some insects, especially bees, can see ultraviolet colors invisible to the human eye. In fact, color camouflage, one of nature's favorite survival mechanisms, depends on the ability of the predator to distinguish colors. The predator is expected to be fooled by the color matching of the prey. Until recently, it was thought that dogs didn't see any color at all. Recent studies now show, however, that dogs can differentiate between red and blue and can even pick out subtle differences in shades of blue and violet.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

HAIR STRUCTURE

Achieving a perfect color always depends on many factors that every colorist should know and understand.
Let's analize the main physical factors influencing the final color result.

Hair diameter may vary from 40 to 120 microns and is formed in 3 layers:

1. Cuticle

The outer most layer of the hair is composed of hard flattened cells (keratin) that overlap the hair like tiles on a roof. Its length is 45 microns and thickness varies from 0,5 to 1,0 micron.
The main function of a cuticle is to protect the cortex layer; It is translucent and does not contain any color.
Maintaining the integrity of the cuticle is one of the main factors that ensures long lasting colors

2. Cortex

The middle layer is formed by cells that vary from 1 to 6 microns, these cells contain hair's natural underlying pigments (melanin) .

3. Medulla

The inner most layer of the hair is located in the center of the cortex fiber

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

HAIR STRUCTURE

FACTORS EFFECTING COLOR RESULTS

As the final hair color is always a result of the combination of the natural hair color + hair type + desired tone and level, it is very important to understand how the hair texture affects the color result.
Evaluate either texture, porosity or state of hair length:

Texture

- Fine hair

small diameter, lacks body; strength may vary due to chemicals services as well as color results may look slightly darker.
Respect recommended processing times.

- Normal hair

medium diameter, good body; perfect for all kind of chemical services. Recommended processing times usually apply.

- Coarse hair

large diameter, firm body; more resistant to chemical services, color results may look slightly lighter compared to fine hair.
Longer processing time than normal hair is normally required.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

HAIR STRUCTURE

Porosity

- Porous hair

Cuticle layers open and feel rough, look dull and non-glossy; dry hair because it has lost its natural protective barrier, cuticle may separate from each other; easier to lighten, it may reject warm tones but absorbs cool tones quickly; it fades faster and needs accurate treatment to prevent loss of shade.

- Normal porosity

Slightly raised cuticle layer, ideal for color absorption and all types of services, good color hold.

- Non porous hair

Cuticle layer feels shiny; the cuticle layer works like protection in order to keep moisture from the hair; Processing time may be longer due to the resistance in absorbing color molecules, non- porous hair holds color very well.
The professional market offers specific solutions for equalizing the porosity of the hair through application of products containing protein and keratin extracts before the chemical service. Check your producer.

Porosity and length

Long hair may show multiple porosity and may need different color application, formula as well as processing time.
Length of the hair is analized considering 3 areas:

1. **roots**: softest cuticle, low porosity and healthy state
2. **medium lengths**: strongest cuticle, more resistant
3. **ends**: the most porous area with cuticle frequently open because the oldest part of the hair; color result may be slightly different than roots.

Texture of the hair

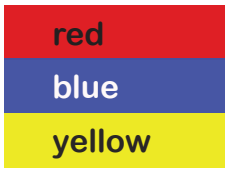
The texture of the hair does not directly effect the final result of a hair coloration but may influence the brightness due to the color reflection.

- Straight hair provides highest reflection and reflects dark and reddish colors perfectly
- Wavy hair provides normal reflection and absorbs more color than straight hair.
- Curly hair absorbs more light and color than any other texture, blond and light colors are usually the most appropriate.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

THEORY OF COLORS

All colors are created with 3 primary colors:



When mixing 2 primary together, a secondary color is obtained:

- blue + red = violet
- blue + yellow = green
- red + yellow = orange

When mixing a primary and a neighboring secondary color together, a third color is obtained:

- blue + green = blue green
- blue+ violet = blue violet
- yellow + orange = yellow orange
- yellow + green = yellow green
- red + orange = red orange
- red + violet = red violet

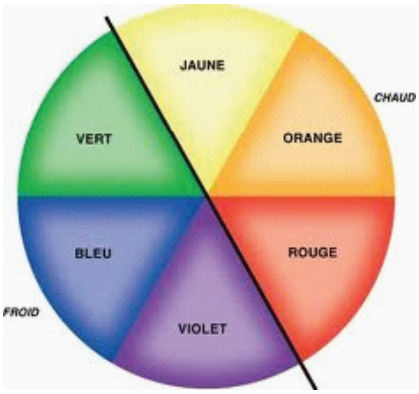
Primary and secondary colors mixed together become dark brown / black color.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

THEORY OF COLORS

Opposite colors = neutralize

Color wheel shows primary and secondary color's disposition.
Each color neutralizes its front color:



- blue neutralizes orange = orange neutralizes blue
- green neutralizes red = red neutralizes green
- yellow neutralizes violet = violet neutralizes yellow

This rule is one of the basics for hair colorimetry

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

HAIR COLORATION TYPES

Hair coloration is based on 3 types of products and accordingly 3 different results:

1. permanent hair color
2. semi-permanent hair color
3. temporary hair color

Permanent hair color allows to radically change level and tone of the natural hair color up to 4 levels darker or lighter from natural dark brown; perfect grey hair coverage and long lasting color; The permanent hair color product is mixed with its developer before application.

Semi-permanent hair color does not allow to lift the level tone of natural hair; it allows to deposit tone on same level or darken the natural hair level; its developer is normally 10 volume. Good coverage on up to 30-40% of grey hair.

Temporary hair color works like a toner that does not lift the hair tone level, it allows to deposit tones on same level or darker than natural hair color. The color disappears after a few washes because no developer is used.Used to mask grey hair but does not cover.

<u>100% vegan hair coloration</u>

Similar to the temporary coloration but 100% vegan, this coloration is mostly made from henna and vegetal powders. The coverage on gray hair is not good and the tones are very bright.

A full chapter could be dedicated to vegan hair coloration as it represents today a concrete reality in salon and a growing request from the clients.

However, due to the diversity of such coloration regarding the technical side and philosophy we will treat this subject in a special report " The vegan hair coloration" that will be soon available on our web site www.haircolorguides.com

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

HAIR COLOR CODES

Color range is based on 10 levels from darkest to lightest; Each level corresponds to a number:

- the lower the number is, the darker the color is.
- the higher the number is, the lighter the color is.

NUMBER	*LEVEL*
1	BLACK
2	NATURAL BLACK
3	CARKEST BROWN
4	BROWN
5	LIGHT BROWN
6	DARK BLOND
7	BLOND
8	LIGHT BLOND
9	VERY LIGHT BLOND
10	ULTRA LIGHT BLOND

* Natural white hair does not have any code

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

HAIR COLOR CODES

The tones

As the level indicates a color more or less dark/light, the tone indicates the intensity of warmness or coolness in the level.
The tones are classified through a code corresponding to the wheel of color and are indicated right after the level number with a letter (US system) or a second number after the point (UE system). The tones are pure or mixed to one another.

Main pure tones in hair coloring

TONES	EU CODES	US CODES
ASH	1	A -ASH
IRIDESCENT	2	I - IRIDESCENT
GOLD	3	G - GOLD
COPPER	4	C -COPPER
MAHOGANY	5	RV - RED-VIOLET
RED	6	R-RED

Main mixed tones in hair coloring

MIXED TONES	EU CODES	US CODES
MAT/GREEN	11	AA / AG – ASH GREEN
BEIGE	13	B - BEIGE
WARM / NATURAL GOLD	0,03	W - WARM
GOLD-COPPER/MAHOGANY	34 / 35	RB – RED BROWN
COPPER GOLD/MAHOGANY	43 / 45	CG – COPPER GOLD
COOL BROWN	23 / 14	CM – CHOCOLATE MOCHA
WARM BROWN	41 / 32 / 25	BC – BROWN COPPER



PROFESSIONAL GUIDE TO HAIR COLORATION

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

HAIR COLOR CODES

The tones below represent the most common ones, as cosmetic research and trends contribute to the development of new products and offer in fact an ever growing choice of shades.
There are today, for example, tones such as titanium, brown-violet or shades of brown impossible to imagine up until a few years ago.
It also must be specified that European cosmetic producers normally offer color lines with tones already mixed while American producers rather prefer pure tones.
Working with pure tones means mastering perfectly the colorimetry concept because it is necessary to be able to create the color by mixing the tones.However, the salon is required to maintain a lower stock of products compared to the European company which provides many more tones, therefore having a higher number of color tubes to buy.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

THE COLOR IDENTIFICATION

How to read and understand a color code:

- the first number indicates the level (from 1 to 10)
- the first letter after the level or second number after the comma identifies the primary tone
- the double letter after the level or third number after the comma is the secondary tone

Example 1

7 C (US code) or 7, 4 (EU code)

LEVEL	PRIMARY TONE	SECONDARY TONE
7 blond	C / 4	

Example 2

6 RV (US code) or 6 , 65 (EU code

LEVEL	PRIMARY TONE	SECONDARY TONE
6 light blond	R / 6	V / 5

HAIR COLOR SERIES

Each cosmetic producer normally provides 4 color series:

1. Standard series

These series provide full range of levels and tones, and are made to cover up to 50% of gray hair and to lighten up to 3 levels.

2. Special coverage series

The special coverage gray hair series are the color series that allow to cover up to 100% of gray hair. Only natural warm brown tones are normally available with these series.

3. Double blond super lightening series

The super lightening series are the blond levels able to lift the natural hair color up to 5 levels. Only 5 or 6 tones are available.

4. Color additives / correctors series

The color additives /correctors series are special bright tones made to adjust the formula.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

COLOR ADDITIVES / CORRECTORS

The color additives /correctors are special series that allow the colorist to create and personalize the color.
Color additives /correctors are usually concentrated tones that are mixed in small quantity to the color formula and are used to:

- neutralize tones
- intensify formulas
- adjust and balance tones
- control underlying pigments

Color additives / correctors chart and uses

BEIGE
Used for blonds 6 to 10; increase cool tones beige, reduce gold brassiness
ASH
Used for blondes 6 to 10, increase cool tones ash, reduce warmths and brassiness
GREEN / DOUBLE ASH
Used for darker levels from 1 to 5; reduce warmths brassiness. Neutralize red
BLU / DEEP ASH
Used for darker levels from 1 to 5; increase ash tones, deepen dark levels
YELLOW
Used for medium levels from 4 to8; intensify gold, copper and red tones; neutralize cool tones when darkening or tinting back
ORANGE
Used for medium levels from 4 to 8, intensify copper and red tones, neutralize ash tones when darkening or tinting back
RED
Used for medium levels from 4 to 8, intensify red tones, neutralize mat tone when darkening or tinting back.
VIOLET
Used for dark levels from 1 to 5, increase violet tones for special effects; Increase cool tones on dark levels

Color additives / correctors mixing
Up to 10 % maximum of the color formula

Example
1,5 oz / 42,5 grams of color cream + 1 to 10% additive / corrector (max 4 grams) + 46 grams / ml developer.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

DEVELOPERS

Developers are processing solutions of peroxide hydrogen which are added to the color cream.
The measure is usually expressed in volume; each volume is chosen and used to achieve a special result:

DEVELOPER VOLUME	ACTION
7 volume	Gloss /Depositing
10 volume	Depositing on level.Darken. Lifting 1 level from level 4 (not all hair color company's 10 volume developer allows to lift 1 level, check with your supplier) Does not allow to cover completely grey hair when used to lift 1 level.
20 volume	Lift 2 levels from level 4. Lift only 1 level from level 2. Perfect to cover grey hair
30 volume	Lift 3 levels from level 3. Lift only 2 levels from level 2.
40 volume	Lift 4 levels with standard series colors. Lift 5 levels with double blond / ultra blond series color (see chapter " blondes"). Do not use on scalp except with the double blond / ultra blond series.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

DIAGNOSTIC & HAIR COLOR FORMULAS

It is important to remember that a color does not remove nor lighten another artificial color but only a natural color.
Lightening an artificial color requires the color removal technique.
See the chapter COLOR REMOVAL.

This means there are 2 diagnostics possible:

1. diagnostic on NATURAL color
2. diagnostic on ARTIFICIAL color

This chapter only focuses on hair color formulas for natural hair color

Choosing the right color formula in hair coloring means a perfect knowledge of the hair structure, the products, theory of color as well as the influence of the underlying pigments.
Once such factors have been analized, achieving a perfect color becomes simple by following
5 easy rules:

1. DIAGNOSTIC : select the natural hair level
2. DESIRED LEVEL: select the desired level.
3. DESIRED TONE: select the desired tone
4. PERCENTAGE OF GRAY HAIR : 0 to 50% or 50 to 100%
5. DEVELOPER : select the right developer

<u>Select the natural hair level</u>
Use the hair color chart to select the natural hair color level from 1 to 10.
If there is a doubt between 2 levels or if the natural level is in the middle of 2 levels on the color chart, select the darkest one when lightening and choose the lightest one when going darker.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

DIAGNOSTIC & HAIR COLOR FORMULAS

Select the desired level

Select the desired level using the color chart; it is possible to darken, color on level or lighten.

Select the desired tone

- NATURAL
- ASH
- MAT / DOUBLE ASH
- BEIGE
- IRIDESCENT
- NATUREL WARM
- GOLD
- COPPER GOLD / GOLD COPPER
- WARM CHOCOLATE
- COPPER
- RED
- MAHOGANY
- COOL CHOCOLATE

Select the amount of gray hair

Standard series enables a perfect coverage on up to 50 % of gray hair.
From 50 to 100% of gray hair, it is necessary to use the special coverage series.
See the chapter “COLORING GRAY HAIR”

Select the developer

- 7 volume (gloss)
- 10 volume (color on level, lighten 1 level)
- 20 volume (lighten 2 levels)
- 30 volume (lighten 3 levels)
- 40 volume (lighten 4/5 levels)

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

DIAGNOSTIC & HAIR COLOR FORMULAS

Example 1 : darkening

Diagnostic natural level	6 N
Desired level	5
Desired tone	G / 3 : Gold
Percentage gray hair	0 to 50 %
Developer	10 volume

In quel caso, l'ossidante 10 volumi è consigliato perchè si deve scurire il colore;
In this case, a 10 volume developer is recommended because darkening is the target.
Standard series allows to cover up to 50% of gray hair.

HAIR COLOR FORMULA : 5 G / 5,3 developer 10 volume

Example 2 : to lighten 1 level

Diagnostic natural level	6 N
Desired level	7
Desired tone	G / 3 : Gold
Percentage gray hair	0 to 50%
Developer	10 / 20 volume

2 developers can be used:
10 volume if it allows to lighten 1 level and high coverage of gray hair is not the priority, (blending is preferred). If the 10 volume developer does not allow to lighten 1 level or if the target is getting high coverage, 20 volume developer is then the most appropriate.
Standard series enables to cover perfectly up to 50% of gray hair.
Although gold is the desired tone, using a natural tone such 7 N mixed with a warm tone is the most appropriate color formula as lightening hair will naturally expose the light- orange underlying pigment which creates by itself a warm gold final tone.
See the chapter HOW THE UNDERLYING PIGMENTS INFLUENCE THE FINAL COLOR.

HAIR COLOR FORMULA : ¾ 7 N + ¼ 7W / 7,03, developer 10/20 volume

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

DIAGNOSTIC & HAIR COLOR FORMULAS

Example 3 : color on level

Diagnostic natural level	6 N
Desired level	6
Desired tone	CG / 43 copper gold
Percentage gray hair	0 to 50%
Developer	7/10 volume

In this case, the developer may be 7 or 10 volumes (it depends on your producer) because the color target is to stay on same level.

HAIR COLOR FORMULA : 6CG / 6,43 developer 7 / 10 volume

Example 4: lighten 3 levels

Diagnostic natural level	5 N
Desired level	8
Desired tone	N natural
Percentage gray hair	0 to 50 %
Developer	30 volume

30 volume developer is necessary to lift 3 levels.
Standard series allows to cover perfectly up to 50% of gray hair.
Although the desired tone is natural, it is necessary to select an ash tone as the primary tone,
plus a beige corrector /additive as the secondary tone in order to control and neutralize the gold / yellow underlying pigment exposed during the lightening process and
therefore achieving a level 8 with a natural tone.

HAIR COLOR FORMULA: 8A / 8,1 + 10% corrector/additive beige, developer 30 volume

HAIR COLOR FORMULATOR is the web application that allow to obtain and verify hair color formulas.
Available on our site: www.haircolorguides.com

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

HAIR COLOR APPLICATION TECHNIQUES

Application on virgin hair

Despite the fact that hair color creams are now formulated without ammonia, it is highly suggested to take the allergy test 48 hours before full head application.
Virgin application means that hair is natural and uncolored.
Virgin hair coloration cases:

- color on level
- darken
- lighten 1 to 3 levels
- lighten 3 to 5 levels

APPLICATION CASES

<u>First application up to 6 inches (15 cm) on virgin hair</u>

1. Apply the color on roots
2. After ending the application on roots, apply the rest of the color (or a different formula) on the lengths.
3. The processing time starts when the application on lengths is ended.
4. Lift the roots frequently in order to increase the oxidation process through the air flow.

<u>Color on regrowth without refreshing the tone on lengths.</u>

1. Apply the color on roots / regrowth area.
2. Processing time starts when the application is ended

<u>Color on regrowth + refresh the tone on uneven lengths</u>

1. Apply the color on roots / regrowth area.
2. Processing time starts when the application is ended
3. Apply the color on lengths after 15 minutes or immediately if the color has faded too much; Remember that the hair color formula in these cases must be mixed with 7/10 volume developer.

Lighten 3 to 5 levels
This application technique is obtained with the double blond super lightening series mixed with 40 volume developer and is explained in the chapter “ THE BLONDS”

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

COLORING NATURAL LONG HAIR

The density of the hair, the form and texture are without doubts some of the factors that influence the final result in hair coloring, however the length is probably the main factor to evaluate to achieve an uniform hair color.
Hair lengths over 5/6 inches (10/15 cm) show different characteristics between roots, mid-lengths and ends so that different processing times are needed on these areas.
Ends are the most porous areas and absorb the color quickly
Roots also absorb the color quickly due to the smooth cuticle and the heat of the scalp that works like an activator.
Therefore mid-lengths are the areas that need longest processing time.

A non-uniform hair color could result in, for example, higher tone on roots and darker ends, if these factors are not understood nor evaluated.
In order to avoid such problems, it is recommended to apply the color first on the mid-lengths while ignoring the roots and the ends.
Wait around 10 minutes and apply the color on roots and ends, make sure there is an uniform quantity of color product on all the hair.
Processing time starts once full head application is ended. Such technique is not suggested with the double blond super lightening series.
See the chapter THE BLONDS / application technique.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

COLORING GRAY HAIR

IMPORTANT

Coloring gray hair means replacing the natural missing pigments :
Eumelanin and Pheomelanin.
Beyond the final result, the hair color formula contains most of the time half part of warm tones (gold, copper) to ensure a good coverage

There are 2 ways to color gray hair: by full coverage or by blending

The full coverage of gray hair makes the final color result very uniform and may seem “heavy” on dark tones because overcharged.
With the blending technique, the final result does not look uniform because the tones remain lighter on gray hair, therefore it creates relief into the color due to the fact that the gray hair is blended but does not get darker as the other hair.

Mixing for the blending technique

- **coarse and resistant hair**

use the color of the standard series mixed with 10/20 volume developer

- **fine and porous hair**

use the color of the standard series mixed with 10 volume developer.

The coverage of gray hair influences the final color result as well as warm tones (copper, red) or cools tones (ash) might be excessively absorbed or rejected.
This is the reason why it is important to establish the percentage of gray hair during the diagnosis.
If the percentage is up to 50%, the standard color series allows to obtain a good coverage of gray hair.
If, instead, the percentage is above 50% and the color target is the full coverage of gray hair, it is necessary to use special coverage color series; these special series are available from any cosmetics producers and guarantee a perfect coverage of gray hair thanks to a higher brown pigment concentration. These colors can be used together or mixed with the standard series colors and normally only work with a 20 volume developer;
These special series do not enable to lighten more than 2 levels and are not recommended to refresh an uneven color on the lengths.

Verify this information with the producer as every product may have its own characteristics.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

COLORING GRAY HAIR

How to mix the special coverage colors series

The mixing is normally the same as the standard color series, 1 to 1 :
1 dose of color cream + 1 dose developer

Refresh the color on the lengths

When using special coverage color series on roots and refreshing the color on the lengths is necessary, do not use the special coverage series but the standard series mixed with a 10 volume developer.

Processing time

Processing time when covering gray hair is approximately 35 minutes for normal hair and 45 minutes for thick and resistant hair.

SPECIAL TECHNIQUES FOR COVERING GRAY HAIR

In the case that the special coverage color series doesn't perfectly cover the gray hair or if these products are unavailable, it becomes necessary to use special techniques such as:

- **Modify the dosage**

Add more color cream than developer (1,5 color cream + 1 developer) ensure more deposit of color, therefore more coverage.

- **Select a darker color**

Select a color 1 level darker than the one diagnosed

- **Pre-coloring**

Pre-coloring means to first deposit a pigmentation on the hair through a tone applied purely or with water. After 10 minutes, apply the color normally mixed with the developer. The most appropriate tones for pre-coloring gray hair are usually warm ones such as gold,
gold-copper.
See the chapter PRE-COLORING.

- **Pre-softening / Mordançage**

Apply a pure 20 volume developer in order to open the cuticle.
See the chapter PRE-SOFTENING / MORDANCAGE

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

MIXING, PROCESSING TIME

Mixing

The unit of measure is the OUNCE (OZ) or GRAM (ML)
Although the color tubes indicate the quantity of product (oz / gr), it is strongly suggested to use an electronic scale to weigh the right amount of color cream.
High precision is required to achieve the best result, especially when using the color additives/correctors.

The usual mixing in hair coloring is 1 to 1

1 oz / 28,34 grams of color cream + 1 oz / 28,34 grams of developer.

* Some hair color companies provide a color cream to be mixed with 1,5 amount of developer :
1 oz / 28,34 grams of color cream + 1,5 oz / 42,51 grams developer.

Processing time

Processing time may vary between hair color companies although the average time is around 35 minutes for normal hair and may be 45 minutes for gray and coarse hair when lightening .

Rinsing

Rinsing the hair color seems like a banal step but is a concrete factor in obtaining good results and long lasting color.
Add a small quantity of water and massage the hair, then repeat again until the color has been rinsed completely.
In case of regrowth application with existing highlights on lengths, the color applied on roots must be rinsed quickly without emulsifying it in order to not deposit tone on highlights.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

HOW THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR

A natural pigment called underlying pigment corresponding to each natural level influences the final result if not analized during the diagnosis.
As explained in the chapter THE NATURAL HAIR COLOR, the pheomelanin is the most exposing pigment during the lightening process. Red, orange and yellow tones, according to the natural hair level are the underlying pigments that come out when lightening and may create undesirable final tones in the color if not neutralized.

HAIR NEVER EXPOSES COOL TONES WHEN LIGHTENING

HAIR ALWAYS EXPOSES WARM TONES WHEN LIGHTENING

The underlying pigment must be neutralized when a cool tone is the final color desired and must be controlled and balanced when a natural or slightly warm tone is the color target.

Here below the level chart is illustrated, its relative underlying pigments and the neutralizing tones.

LEVEL	UNDERLYING PIGMENT	NEUTRALIZING TONE
1 Black	Red dark brown	Dark double Ash
2 Very dark brown	Red dark brown	Dark double Ash
3 Dark brown	Red brown	Dark double Ash
4 Brown	Red	Dark double Ash
5 Light brown	Red - orange	Deep ash
6 Dark blond	Orange	Ash , Beige
7 Blond	Orange - gold	Ash , Beige
8 Light Blond	Gold	Light Ash, Iridescent, Beige
9 Very light blond	Yellow	Iridescent, Beige
10 Ultra light blond	Pale Yellow	Light Iridescent, beige

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

GUIDE TO THE HAIR COLOR CORRECTION

When the hair has become too porous due to the chemical treatments, thermic styling tools, sun, lack of care, it is sometimes necessary to adjust the color formula with the color additives/correctors or by pre-filling.
Pre-fill the hair means adding the missing pigment before the color application.
Such technique allows to obtain an uniform and long lasting color when:

- hair color has faded due to the porosity
- going back darker more than 3 levels
- going back to a natural tone

Pre-filling is normally a pure warm tone (or mixed with hot water but without any developer) which is applied on dry and faded areas before applying the color formula.
The first rule when pre-filling is that the tone used is normally 1 or 2 levels higher than the final level: pre-fill by example with 7C / 7,44 and color with 5 or 6 CG / 43.

The color additives enable the colorist to avoid pre-filling because of the high pigmentary concentration of these series.
The color adjustment chart below shows the right color additive to use for each case.
Whether the color must be adjusted through a pre-filling technique or by using the color additives directly to the hair color formula, remember that only warm tones are used to correct the color and follow the second rule:

- red tones are used for levels 2 – 3 – 4
- orange tones are used for levels 5 – 6 – 7
- gold tones are used for levels 8 – 9 – 10

COLOR ADJUSTMENT CHART WITH THE COLOR ADDITIVES

NATURAL tones	Add YELLOW / GOLD
BEIGE tones	Add YELLOW / GOLD
WARM tones	Add YELLOW / GOLD
GOLD tones	Add YELLOW / GOLD
COPPER GOLD / GOLD COPPER tones	Add ORANGE / COPPER
COPPER tones	Add ORANGE / COPPER
RED BROWN / BROWN COPPER tones	Add GOLD-ORANGE
RED tones	Add RED / ROSSO
RED VIOLET tones	Add RED / ROSSO

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

GUIDE TO THE HAIR COLOR CORRECTION

Going back darker (at least 3 levels)

When going back darker at least 3 levels or going back to a natural level, it is necessary to replace the missing pigment in the hair with the color additives/correctors or the pre-filling technique.

Going back darker from pale blond (level 10) to natural brown (level 4)

COLOR TARGET	COLOR FORMULA	MISSING PIGMENT
9N	9G / 9,3	No need to pre-fill nor color additive
8N	8G / 8,3	No need to pre-fill nor color additive
7N	7G / 7,3	Add 5% of GOLD additive or PRE-FILL with 1/2 8G / 8,3 + 1/2 8CG / 8,43
6N	6G / 6,3	Add 10% GOLD additive or PRE-FILL with 1/2 7G / 7,3 + 1/2 7CG / 7,43
5N	5G / 5,3	Add 10% ORANGE additive or PRE-FILL with 6 C / 6,44
4N	4RB / 4,35	Add 10 % of ORANGE additive or PRE-FILL with 5 CR / 5,46

Going back darker with red tones

When going back to a darker red tone from pale blond, it is always recommended to mix a GOLD tone to the red color desired in order to balance the formula.
1/3 of gold tone to the red formula will create a base without influencing the red tone but will avoid the bringing out of some pinkish tones in very dry and porous hair.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

THE RED COPPER

Red copper tones are the most vibrant colors for intensity but also the most delicate because these colors fade easily and to obtain a perfect uniformity requires some attention.
The difficulty in achieving a uniform color between the roots, mid-lengths and ends is due to the fact that porous ends may need to be pre-filled (see the chapter GUIDE TO HAIR COLOR CORRECTION), the roots may get lighter and more vibrant due to scalp temperature and the mid-lengths may be more resistant.
That's why it is sometimes suggested to pre-fill the hair or adjust the color formula with the color additives and start the application on the mid-lengths (see the chapter COLOR THE NATURAL LONG HAIR)

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

THE BLONDS

Blond color is probably the most dreamed of hair color but particular attention during the diagnosis is required as lightening hair means exposing the red-orange-yellow underlying pigments. These pigments need to be neutralized in order not to create yellow blonds.

Blond is obtained by lightening 1 to 5 levels from a natural light brown level (5).
The tones of blond can be either cool or warm according to the natural starting level.

Cool blonds

Because the hair always exposes red-orange underlying pigments when lightening, it is indispensable to use cool tones to neutralize these pigments and achieve a natural/cool blond.
Cool blonds are

- Ash blond
- Double Ash blond
- Beige blond
- Iridescent blond

A correct diagnosis should allow to determine the levels to lighten and the opposite tones to neutralize the underlying pigments.
Adding the color additives/correctors to the blond series is sometimes suggested to better neutralize these undesired yellow tones.

Warm blonds

Warm tone blonds are easily obtained due to the red-orange-yellow underlying pigments.
Using a natural blond or slightly mixed to a cool blond tone such as ash will not completely neutralize the red-orange pigment and enable you to obtain a final warm tone.
Using warm blond when lightening 1 or 2 levels will create a very warm blond.
It is not advisable to use a warm blond when lightening 3 levels in order to not over color such red the final tone.

Warm blonds are:

- Gold
- Natural Gold-
- Natural Copper

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

THE BLONDS

Lightening 1 to 3 levels

It is possible to lighten up to 3 levels from a natural dark blond (6) by using the blond from the standard series mixed with 10,20,30, developer.
40 volume developer is only used for highlights but MUST NOT be used on scalp with the standard series colors.

Lightening 3 to 5 levels

It is possible to lighten 3 to 5 levels from a natural light brown (5) with the double blond super lightening series mixed with 40 volume developer.

The tones of the double blond super lightening series are normally:

BLOND TONES	EUROPE CODE	US CODE
NATURAL blond	900	DB 12 N
ASH blond	901 / 911	DB 12 A / 12 AB
GOLD blond	903	DB 12 G
BEIGE blond	913 / 923	DB 12 B
IRIDESCENT blond	902 / 912	DB 12 I

Due to the special lightening action and composition, the double blond super lightening series can not be mixed with the standard series.

Mixing & processing time

The dosage is normally 1 part double blond super lightening series + 2 parts 40 volume developer.
The processing time is 45 minutes.
* Check with the producer

Tips

Fine hair on the hairline lightens quickly, therefore it is not advisable to apply a double blond super lightener color on it and respect the regular processing time (45 minutes); Use instead the standard series blonds or apply the double blond super lightening series in the last 30 minutes.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

THE BLONDS

DOUBLE BLONDS SUPER LIGHTENING APPLICATION

Application on virgin hair

1. Apply the color starting from the lengths and ends, do not apply the on the roots.
2. After 15 minutes or when a the hair color starts changing, take off the excess of product on lengths and ends.
3. Prepare the same hair color formula as before and apply the color on roots, mid-lengths and ends.
4. Processing time : 45 minutes

Application on regrowth

1. apply the color on the roots /regrowth area
2. processing time 45 minutes.

Refreshing blonds on the lengths

The double blonds super lightening series are not formulated to refresh lengths which have already been colored.
Therefore, it is necessary using blond tones from the standard series mixed with 7/10 volumes developer.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

DECOLORATION / BLEACHING

To decolorize or bleach the hair means lightening a natural level by eliminating the natural pigments.
This technique is necessary to lighten more than 2 levels from a natural dark level (1 to 3) or more than 3 levels from a natural level 4.
The decoloration can be done as a full head application or with foils for highlights.
The result in both cases is a not a color but a red, orange, yellow, light yellow or white lightening level.
When the decoloration is applied on full head, the lightening level represents the new level to be colored by neutralizing the red-orange-yellow tones.
When the decoloration is applied with foils to obtain highlights, the lightening level is only toned with a cool light tone to balance the light yellow tone.

One of the difficulties when decolorizing is to obtain the right lightening level in order to achieve the desired color:
a lightening level which is too light would mean an excessive elimination of pigments which would create a faded tone and a short lasting color.

The general rule when decolorizing is that the lightening level
must not be lighter than the final level desired except when cool ash tone is the final color desired.

The second difficulty when decolorizing is to obtain a uniform level from the roots to the ends.
That's why the application starts first from the ends + mid-lengths and after on the roots.
The decolorizing product is a powder or gel that must be mixed with a 7/10 volume developer on very fine hair, 10/20 volume developer on scalp and normal hair and 20/30 volume developer on thick and resistant hair. Respect the processing time indicated by the producer and only use the 10 or 20 volumes developer on the scalp.
Do not use 40 volume for decolorizing.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

DECOLORATION / BLEACHING

Lightening's level chart

LIGHTENING LEVEL	LEVEL
RED	2 – 3
RED – ORANGE	4
ORANGE	5
ORANGE-YELLOW	6
YELLOW ORANGE	7
YELLOW	8
PALE YELLOW	9
VERY LIGHT PALE YELLOW	10

DECOLORATION APPLICATION

- Mix the decolorizer with a 10/20 developer for application on scalp (never higher than 20 volume) and mix it with a 10/20/30 volume for application on lengths. Check with the producer for the dosage.
- When hair is longer than 2 inches (5/6 cm), start the application on the ends and mid-lengths and don't touch the roots at this point.
- After around 15 minutes, apply the decolorizer on the roots , make sure there is the same quantity of product from the roots to the ends.
- The processing time is optional because it depends on the product, the lightening level to achieve and the hair resistance. It is indicatively 5 to 45 minutes.
- Rinse, wash and moisturize the hair.
- Dry, apply a vegetal oil on the scalp and proceed to the hair coloration.

Tips

When decolorizing more than 2 levels on dark or very resistant hair, it is sometimes suggested to achieve the lightening level desired by obtaining the decoloration in 2 steps:
use a 10 volume developer as the first step and after rinsing, washing and drying, proceed to the second application by using a 20 volume developer.

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

COLOR REMOVAL

Although apparently similar to the decoloration due to the lightening action on colored hair, the color removal technique is completely different.
The decoloration is the process that permits to lighten natural hair.
On the other hand, the color removal technique enables to eliminate the color residues on colored hair. Compared to the decoloration, the color remover only eliminates the artificial pigments leaving intact the natural hair pigmentation.
Such technique is used when the color target is becoming lighter than the artificial color or when the tone has become uneven or overcharged and needs to be cleaned up by a “scrub”.

Lightening an artificial color
Because a color can not lighten an artificial color, the color removal technique is necessary when the color target is to achieve a level lighter than the starting color level.
The level-tone obtained after the color removal depends on the tone to be eliminated but is always a red-orange-yellow level-tone on which the final color will be applied.

* the color removal level-tone is similar to the lightening levels when decolorizing.

“Scrub”
Because some tones such as red-copper, brown and blond become uneven on the lengths, the “scrub” technique means applying a color remover to clean up the hair of its impurity.
This action only lightens half a level (or less) in order to not change the level of the hair color formula which will look shimmeringly light.

PREPARATION OF COLOR REMOVER

COLOR REMOVAL /	MIXING	PROCESSING TIME	WAY OF APPLICATION
Scrub 1/2 ton	Color removal product + hot water	5 to 15 minutes	Full head quickly through-out the hair
Light shades up to 1 level lighter	Color removal product + hot water	10 to 20 minutes	Partial application where required with a sponge or
Light shades up to 2 levels lighter	Color removal product + 20 volume developer	15 to 40 minutes	Partial application where required with a sponge or
Dark shades, heavy build up of color	Color removal product + 20 volume developer	35 to 60 minutes	Partial application where required with a sponge or

THE NATURAL HAIR COLOR
LIGHT & COLOR CONCEPT
HOW DO THE EYES SEE THE COLOR
HAIR STRUCTURE
THEORY OF COLORS
HAIR COLOR TYPES
HAIR COLOR CODES
THE COLOR IDENTIFICATION
DEVELOPERS
DIAGNOSTIC & HAIR COLOR FORMULAS
HAIR COLOR APPLICATIONS TECHNIQUES
COLORING NATURAL LONG HAIR
COLORING GRAY HAIR
MIXING & PROCESSING TIMES
HOW DO THE NATURAL PIGMENTS INFLUENCE THE FINAL COLOR
GUIDE TO THE HAIR COLOR CORRECTION
THE RED COPPER
THE BLONDS
DECOLORATION / BLEACHING
COLOR REMOVAL
PRE-SOFTENING / MORDANCAGE

PRE-SOFTENING / MORDANCAGE

This technique means applying a pure 20 volume developer on dry hair in order to open the hair cuticles and prepare it to better absorb the color. Apply the product on mid-lengths + ends and leave the roots free for 1 inch (2/3 cm). Dry the hair and apply the hair color as usual. Hair mordançage / pre-softening can be used for thick,resistant and gray hair but is not recommended for fine hair.