START®

The Feeling for Snow

WAXING GUIDE

for alpine skis and snowboards

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Introduction

Skiing with good skis and snowboard is fun. Even good, modern Carvings or new snowboards can not stay in shape without constant care and waxing.

This waxing guide gives you information about the basics of waxing. We will also offer waxing and equipment maintenance guidelines for competitive skiers. We will inform you about using START ski waxes and uniqueness of our new products. This guide will also give you waxing tips and examples for various conditions.

Waxing should not be more difficult than it appears to be. For a recreational skier priming (base waxing) and glide waxing are enough. Advanced level racing require tuning equipment to the highest possible level when competing for victory (struggling for milliseconds). Then waxing plays a big part.

This guide will give you information about preparing your skis/snowboard for racing. The use of Start waxes is described and waxing directions for special waxes are given. This guide will also explain how to use our new advanced special waxes. This is to guarantee that you will succeed the best possible way by following our directions.

Conditions vary and influence greatly both waxing and choosing the right wax. Pay attention to the conditions so that you can choose the right wax and wax your skis/snowboard accordingly. If you succeed in waxing in certain conditions, use the same method next time around even if it may differ from the instruction given in this guide. Rely on your own experience and judgment. The instructions cited in this guide are only generic and therefore, even slight changes in conditions may influence waxing.

Conditions can be very tricky. Even if the condition looks easy, it may not be that. Even slight changes in the coating of skis can cause better results. You should always try something new.

Below you will find examples of very difficult conditions when temperature and humidity will not tell you all and waxing can be very hard.

- In the fall, when snow falls on wet ground, it becomes more moisture than normally. When the air cools down, the moisture may cause troubles.
- After a long warm season, new falling snow prevents the moisture from evaporating. When the air cools down, sometimes even during snow fall, the snow surface is still more moisture than normally which makes it difficult to wax.
- A long cold season dries the snow surface. When the air warms up and becomes more humid, the snow surface is still quite dry and analysing the conditions become very important.
- Remember that careful analysis will lead to the best results in race waxing.

Read this waxing guide carefully and apply it by using your own experience and judgment. This will guarantee success and challenge you when waxing your skis/snowboard. We wish you success for this winter season.

Startex Oy

Jukka Järvinen
Manager Director

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Equipment required for waxing

Attached you will find a list of products required for waxing.

Waxing table: For alpine- and ski jump skis proper clamps should be obtained and attached to the bench.

Waxing iron or regular iron: Waxing iron has a thicker base and the thermostat is more accurate so that the temperature remains constant.

Acryl scraper: to scrape off glide waxes, groove scraper to clean the middle groove.

Brushes: Brass and copper brushes; structuring the bases. Nylon brush (hard); brushing glide waxes. Nylon brush (soft); brushing coating waxes (powders, polymer liquid waxes). BM-brush (natural hair); to open the structure of waxed base. Note! Separate brushes for glide waxes and powders.

Polishing cloth: to polish waxed base and general maintenance

Natural cork for rubbing of the coatings

Polymer cleaner: to remove glide waxes and polymer glide liquids

Thermometer: to measure air temperature and/or humidity

Safety mask: with gas and dust filters (A and P2 levels). There is also Start Air Defence smoke remover available which is easy to fasten to a standard wax iron.

Safety regulations for fluor waxes

Different fluor derivatives have become raw materials for glide waxes for good. Therefore, it is important to know how to use fluor waxes.
Make sure that every product you buy has all the necessary instructions and information. Usually a familiar and well-know brand guarantees quality, reliability and safety. When you think ahead, you will prevent yourself from unpleasant surprises.

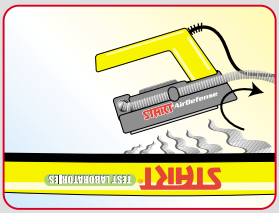
Use the instructions below when using fluor waxes.

Avoid high temperatures
Avoid high temperatures when melting fluor waxes (over +160°C) because unhealthy gases may vaporize.

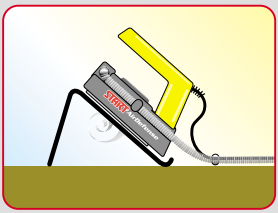
Make sure that you have proper ventilation
It is unhealthy to breathe fluor dust and gas. Make sure that you have proper ventilation and use safety mask when melting or brushing fluor waxes.

Do not use gas or open fire
Do not use gas or open fire in the waxing premises, do not smoke because high temperatures make fluor gases vaporize.

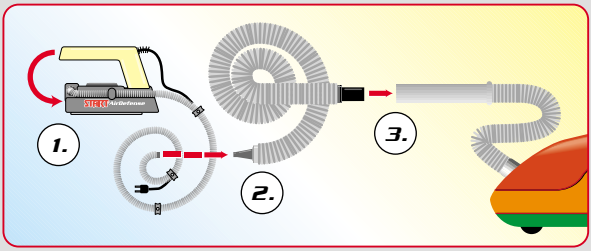
AirDefence



Start® AirDefense absorbs and carries out the smokes, which spring up while hot ironing the waxes.



Start® Air Defense cleans the air while standing on the rack, where the remaining wax will smoke after waxing.



1. Adjust Start®Air Defense to the wax iron. **2.** Connect the tube of Start® Air Defense to the extra tube (5m). **3.** Connect the extra tube to the vacuum cleaner, which should be in other room or outside.

Base waxing

Thorough base waxing is essential for successful waxing. A wax used for base waxing should be absorbed thoroughly onto the base and create a strong surface for waxes to be melted on top of it.

Make sure that your skis/snowboard do not have any defaults before you start using them.

Clean up the base by melting with an iron a thick layer of base wax. Remove the wax when warm and liquid by using a cloth. The wax will absorb all dirt and wiping the base with the cloth will clean the bases.

Now you can start the actual base waxing which is meant to get the bases absorbed by base wax and/or base wax graphite. This procedure will also remove all lint from the base. Base waxing procedures vary depending on the base material.

Polyethylene base and transparent bases

1. Melt BW base wax or purple service wax onto the base. Let the wax cool down and scrape off the excess wax with a sharp acryl scraper. Afterwards brush the base with a brass brush until the base structure becomes visible. Repeat the procedure once or twice.
2. Melt blue service glide wax or purple (-1° . . .-8 °C) Start AG5 glide wax onto the base. Let the wax cool down and scrape off the excess wax. Afterwards brush the base with a brass brush until the base structure becomes visible.
3. Repeat the above procedure from 2 to 5 times.

6x125g

New!

BW	Base wax
BWG	Base wax Graphite
BWLF	Base wax low fluor
SW	Service wax
SW	Service wax

Start Service wax

Graphite polyethylene bases, so called black bases

1. Melt BW base wax or purple service wax onto the base. Let the wax cool down and scrape off the excess wax with a sharp acryl scraper. Afterwards brush the base with a brass brush until the base structure becomes visible. Repeat the procedure once or twice.

2. Melt ABG (alpin base graphite) onto the base. Scrape off the excess wax with a sharp acryl scraper immediately when the wax is still warm. Afterwards brush the cooled base with a brass brush until the base structure becomes visible. Repeat the procedure once or twice.

3. Melt blue service glide wax or purple (-1° . . . -8°C) Start AG5 glide wax onto the base. Let the wax cool down and scrape off the excess wax. Afterwards brush the base with a brass brush until the base structure becomes visible.

4. Repeat the above procedure from 2 to 5 times.

Note! When melting the wax, make sure that no smoke comes out because a hot iron can damage the base. When waxing in a cool place, the wax should be melted properly onto the base.

Old skis or snowboards

Old used skis/snowboards can be grinded with a machine to remove scratches from the base. After the grinding, skis should be base waxed as described above.

Summer storage of skis or snowboards

Clean the bases properly. Melt purple or blue service wax onto the clean bases and leave it there for the summer to prevent the base becoming oxidized or dusty. Scrape off the excess wax when you start using the skis/snowboard again in the fall.

Start BWLF
low fluor base wax

4. GLIDE WAXES FOR RECREATIONAL SKIERS

There are wide collections of ski waxes on the market, which makes the choose of correct wax very difficult. However, there are plenty of waxes, which are mainly planned to be used as racing waxes. We present here first our Easy Waxes for recreational skiers and snowboarders.

Let the shop or ski service base wax your skis or snowboard.
Choose easy and handy way to get good glide for your skis and snowboards.

Start **Dope Wipe** is the correct choice for all who want handy a good and long lasting glide.

1. Open the sachet
2. Wipe the base thoroughly with Dope wipe.
   Notice: Just wipe, do not rub back and forth.
3. Let the bases dry out 1-2 min. Skis/snowboard are ready for skiing/snowboarding.

No specialty waxing tools are needed while "doping" the base. Snow makes the base even and after some hundreds of meters of Skiing/snowboarding the long lasting glide film of Dope is ready. Easy and comfortable!

There are also **Easy Wax** liquid and pastes.

- START Easy Wax Ultra liquid (Universal for all conditions)
- START Easy Wax Ultra paste (Universal for all conditions)
- START Alpin Universal Pastes + and –
- START Alpin Fluor Pastes + and –

All of these waxes are easy to apply onto the base with the applicator sponge.

1. Choose the correct wax and apply a layer on the base with the applicator sponge.
2. Let dry out some minutes.
3. Polish with a cloth or with the polishing sponge at the bottom of the Ultra Liquid bottle.

Your skis/snowboard are ready for enjoyable skiing/snowboarding. Wax your skis/snowboard daily and you get good glide lasting.

You may also pick **START Easy Wax Ultra Bloque**,
which is in handy pocket package.

1. Open the cap and rub the wax onto the base.
2. Polish with the polishing sponge at the bottom of the box.

This is really handy to carry with and easy to apply even outside where ever you are skiing/snowboarding.

Selecting glide waxes

Determining (specifying) the conditions

When choosing glide wax, you can use the relative air humidity as a determining criterion (factor). Based on humidity, you can determine whether to use fluorless waxes or certain fluor waxes. You can also check a wax's applicability to certain snow types. Start collection has right product series for all conditions attached with instructions.

BWLF Fluor base wax

The Start collection (line) contains six glide wax series. In addition, there are several base waxes and coating waxes in the collection. After comprehensive research, the correct materials and formulations to get the best results have been found.
For base waxing Start base wax (BW), Alpine base wax graphite (ABG) and low flour base wax (BWLF).

Start BWLF low fluor base wax

Start BWLF wax is recommended to be used for all fluor waxes as a base wax in wet conditions. This base wax creates a surface on the base that repels dirt and moisture. Fluor in the wax makes a good foundation for fluor waxes improving their permanence also for longer distances.

START AG series

When the humidity is below 55%, select a glide wax from the fluorless Start AG series according to the temperature.

Start AG glide waxes

- AG3 yellow (+10°…-1 °C)
- AG5 purple (-1°…-7 °C)
- AG7 yellow (-7°…-25 °C)

All packages have a selection table, which gives you temperature recommendations for each wax. These waxes do not contain any silicon or similar additives. Therefore, they are also suitable for base waxing.

under 55%
THE RELATIVE HUMIDITY

START
AG -glide waxes

START LF series

When the humidity is between 40% and 60%, select a low fluor glide wax from the Start LF series according to the temperature. Low fluor glide waxes in the LF series are inexpensive low fluor waxes. LF glide waxes are used for racing and training. Low fluor glide waxes in the LF series are also excellent as base waxes for other fluor waxes.

Start LF glide waxes

- LF04 red (0°…-3 °C)
- LF06 purple (-3°…-8 °C)
- LF08 green (-8°…-30 °C)

All these packages have a selection table with temperature recommendations for each wax.

START AF glide waxes

- AF30 white (+10°…0 °C)
- AF50 red (0°…-7 °C)
- AF70 blue (-7°…-25 °C)

All these packages have a selection table with temperature recommendations for each wax. Start AF waxes have high fluor content. Therefore, in most conditions, they alone produce glide properties, which need no coating. New fluor materials, especially developed for glide waxes, produce these unique glide properties.

Different fluor according to the conditions

Waxes made for different conditions contain different kind of fluor. Each fluor wax works best in its own restricted condition. Testing and researching these conditions have been a challenging task. All this work has been put into developing these AF series fluor glide waxes. Olympic gold medals and World Championships are a good proof of the quality of the AF series. These waxes are hard enough and very permanent, and they apply to being base waxes for powders. Together they create a unified and good gliding surface.

55%...75%
THE RELATIVE HUMIDITY

START
AF -glide waxes

START PHF series

When the humidity is more than 75%, select a fluor polymer glide wax from the Start PHF series according to the temperature.

Start PHF glide waxes

- PHF200 yellow (+10°…+1 °C)
- PHF400 red (+1°…-1 °C)
- PHF600 purple (-1°…-6 °C)
- PHF800 blue (-6°…-12 °C)

All these packages have a selection table with temperature recommendations for each wax. Fluor polymers in the Start PHF series glide waxes produce along with PF powders unbeatable glide qualities. New fluor polymers, especially developed for glide waxes, produce these unique glide properties.

Different fluor according to the conditions

Waxes made for different conditions contain different kind of fluor. There are different waxes for cold and wet conditions. Each fluor wax works best in its own restricted condition. Testing and researching these different types of fluor materials have been an overwhelming challenge, which has led to the development of these PHF polymer fluor glide waxes.

In cooperation with the International Racing Teams

The development work has been done in cooperation with International Racing teams, which have been very valuable in our tests. Olympic gold medals and World Championships are a good proof of the PHF series' invincibility. These waxes are hard enough and very permanent, and they apply to being base waxes for powders. Together they create a unified and properties surface.

Polymer fluor powders for the surface

PHF series glide waxes are used for very moist conditions, usually beneath polymer fluor powders (PF550 and PF750 powders). PHF glide waxes and PF powders can also be coated with Golden Line Polymer liquids.

75%...100%
THE RELATIVE HUMIDITY

60 g

START PHF -series

Fluor powders

Fluor powders SF30 and BM7 are fluor based finishing waxes, which are used to reduce surface tension under water-saturated snow conditions and high humidity (over 75%). Under these conditions, snow is usually new, and packs tightly beneath the ski preventing the removal of water from between the ski and snow, resulting in a significant increase in "suction". In sports where the same track is used constantly (Nordic skiing, ski jumping), the track becomes noticeably shiny and glazed after a few runs. The glaze is a sign of a compact water surface. Fluor coating waxes, base structuring and Start Golden Line polymer glide waxes are used to improve the glide diminished by the suction.

Fluor powdering is applied by using either hot or cold application techniques depending on the duration of the performance.

START fluor powder usage recommendations:
- SF30, soft glide, variable conditions (+5°...-5 °C)
- BM7, wet, coarse and dirty snow (+10°...-3 °C)

Fluor powder hot application
- Spread the powder evenly onto a pre-prepared base surface.
- Melt the powder with a waxing iron or standard iron until the wax forms into a smooth layer on the surface of the base.
- Let it cool down completely and brush off the excess wax with a nylon brush and a finishing brush.
- Brush the base one more time after the testing (finishing brush) or let cool down outside for a moment.

Fluor powder cold application
- Spread the powder evenly onto the completed (waxed) base.
- Adhere the powder to the base by rubbing with a natural cork and brush with a finishing brush.

START fluor powders

- The powder stays on the base for a short performance when applied cold and is the refore suitable for short distance skiing or ski jumping.

Polymer fluor powders

PF powders (PF550 and PF750)
- PF550 (+5°...-3 °C)
- PF750 (-3°...-10 °C)

Polymer fluor powders are used when the humidity is very high (over 85%). They work best as coating waxes for polymer fluor glide waxes.

- Spread a thick, even layer of the powder onto the pre-prepared base surface.
- Melt the powder with a waxing iron or standard iron until it forms into a smooth layer on the surface of the base. Remember the high melting point.
- Let it cool down completely and brush off the excess wax with a hard nylon brush and finishing brush.
- Test the glide or ski a short test distance.
- Brush the base one more time after the testing (finishing brush).

PF polymer fluor powders can be used simultaneously with Golden Line coating liquids.

START polymer fluor powders

Polymer fluor powders require very high melting temperature (+150 °C). Because of this high melting temperature, polymer fluor powders need to be spread onto the base more heavily than other powders. Otherwise, some parts of the base can be left without any powder. After the brushing, the base is splotchy instead of evenly black, and the glide is not ideal.

Keep this in mind when using polymer fluor powders!

START fluor blocks

START fluor blocks (SF92, SF99 and BM5) are concentrated fluor carbon based finishing/coating waxes, which add quickness and glide to the ski under humid conditions.

START fluor blocks usage recommendations:
- SF92 (-9°...-20 °C), humidity over 75 % and the weather is warming up fast
- SF99 (+9°...-9 °C), humidity over 75 %
- BM5 (+10°...-5 °C), humidity over 75 %, coarse and/or dirty snow

20 g

75%...100%
THE RELATIVE HUMIDITY

START fluor blocks

Fluor blocks can be applied by using either hot or cold application techniques.

Fluor blocks cold application

- Rub a thin layer of the wax block onto the pre-waxed base.
- Adhere the wax to the base by rubbing with a natural cork.
- Brush off with a soft finishing brush until the base structure becomes visible.
- To finish up, polish the base with a polishing cloth.

This procedure can be applied on the top of fluor powders as a final coating.

Fluor blocks hot application

- Rub a thin layer of the wax block onto the pre-waxed base.
- Iron the wax through a polishing cloth using either a waxing iron or standard iron.
- Attach one piece of Start polishing cloth onto the iron so that the iron surface does not touch the wax.
- Move the iron smoothly along the base.
- The polishing cloth prevents the vaporization of fluor compounds and equalizes the heat of the iron.

The iron should be set to the same temperature, which was used to apply the previous wax layers.

Let the base cool down, then brush very gently with a soft finishing brush and finally polish with a polishing cloth.

Powder hardener SG9

This powder hardener is used when snow is very wearing (coarse, icy and man-made snow). When the snow is very wearing, glide waxes alone cannot make a hard enough surface for them to stay on the base. So, they will wear off and the glide will decrease during the performance. On the other hand, sharp snow crystals can penetrate into the softer wax surface and create some friction. This problem is emphasized when skiing on man-made snow, which is very sharp and wearing. In these conditions, glide waxed surface needs to be hardened with the START SG9 powder.

- Sprinkle an even layer of the powder onto the base.
- Iron the wax onto the base.
- Gently scrape off the excess wax when the wax is still warm.
- Brush the cooled based with a hard nylon brush until the base structure becomes visible.
- Finally polish with a finishing brush.

30 g

START powder hardener SG9

START Black Magic (BM Molybdenum/fluor glide waxes)

START BM glide waxes are combination molybdenum/fluor carbon waxes to be used for old, coarse and dirty snow when the humidity is high (over 60%).

START BM series include three glide waxes:
- BM2 (+10°…0 °C)
- BM4 (0°…-6 °C)
- BM6 (-6°…-25 °C)

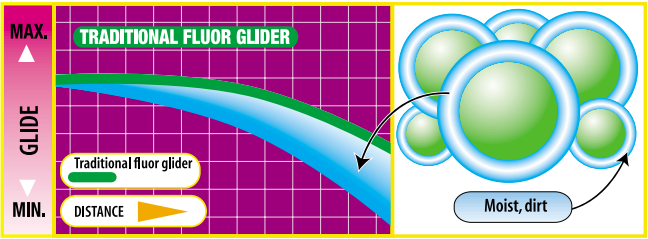
All these products have a selection table with temperature recommendations for each wax.

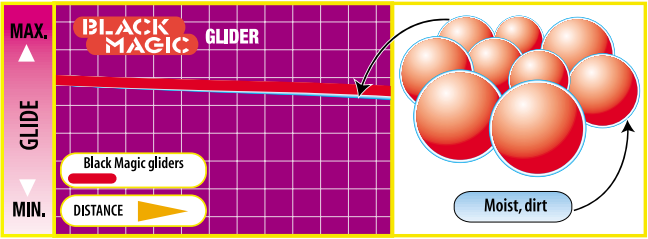
BM series glide waxes' superior qualities have been achieved by combining the excellent glide properties of fluor carbons with the dirt and water repellent properties of molybdenum.

Superior glide for difficult conditions

The more challenging and difficult the conditions are, the more benefits of molybdenum come out. The wax compound's tenacity creates an effective cover against dirt and moisture.

- On extremely coarse, wet and dirty snow the glide achieved by using fluor waxes can diminish rapidly during the performance. Whereas, Start Black Magic glide waxes remain effective for a long time. Diminish in gliding was thought to happen because the waxes wore off too quickly. Studies conducted by Start team have shown that the actual cause is often dirt and water absorbtion into the ski base, leading to a rapid decline in glide.





Molybdenum/Fluor combination in Start Black Magic –gliders prevents the absorption of moisture and dirt into the base. So the extraordinary glide abilities will stay stabile even on coarse-grained, wet and dirty snow conditions.

Glide abilities remain in difficult conditions and in variable speed

START BM waxes combine the tenacity of molybdenum, which resists effectively dirt and water accumulation, and the unique gliding properties of fluor. The properties of Start BM series waxes remain even in difficult conditions and in variable speed.

The compound wax mixture maintains the glide despite of the pressure put onto the ski/snowboards. This advantage is remarkable when comparing deviant qualities of different sports.

BM-gliders work well on man-made snow

We recommend BM glide waxes to be used in conditions where snow is dirty, humid and coarse.

Based upon our test and usage experience Start BM glide waxes are a superior alternative on man-made snow, which is always sharper-crystalled and more wearing than natural snow, but at the same time very wet. This also applies to chemically treated snow where the snow surface is always very aggressive and abrasive.

BWLF base wax or AF5 purple glide wax should be used as base waxes for all Start Black Magic glide waxes.

For new and fine snow, HF glide waxes or PHF polymer glide waxes are a better alternative than BM glide waxes. BM glide waxes are suitable for old, coarse and dirty snow or man-made snow.

60 g

55%...75%
THE RELATIVE HUMIDITY

START Golden Line Polymer fluor glide wax series

START Golden Line Polymer glide waxes

- Golden Line Wet (red), for wet snow (+10°…+1 °C)
- Golden Line Humid (purple), for humid snow (+1°…-3 °C)
- Golden Line Cold (blue), humid cold snow (-4 °C… and colder)

Revolutionary glide wax series!

Start Golden Line polymer waxes will revolutionize glide waxing.

By means of polymer chemistry, a problem caused by the so-called "suction" phenomenon, which occurs in wet and very humid conditions, have been solved in Start Golden Line series.

In comparison to the traditional fluor waxes, Start Golden Line waxes can improve the glide by 2 % in conditions where there is water between the base and snow surface. The more there is water on the snow surface, the more glide improvement can be achieved. Start Golden Line waxes remain (stay) on the base even better than before, which maintains a consistent glide even in long distances.

Start Golden Line glide waxing minimizes the "suction" problem

Water molecules have both plus (+) and minus (-) charges and therefore they stick to the glide base of skis or snowboards, no matter whether the base is charged with plus or minus charges. Start Golden Line glide wax series' superiority is based upon layered treatment (processing) where water molecules' electromagnetic gravitation is neutralized. Because of this neutralization glide diminishing effects are minimized and the suction disappears almost completely.

Start Golden Line process

1. By means of the first stage of the process (handling) the fluor containment in the base is activated with a compound designed for this purpose.
2. In the second stage of the process, fluor polymer with low surface tension creates an optimal charge in the base. This makes it possible to spread an active strongly compounded surface material onto the surface.
3. During the third stage of the process, an accelerator is spread onto the surface, which works only on the correctly built foundation (it is pivotal to follow the instructions!)

START Golden Line series include three polymer glide wax series

- WET series for wet conditions

- START GOLDEN LINE WET RENOVATOR – fluor wax, red
- START GOLDEN LINE WET BINDER – fluor polymer powder
- START GOLDEN LINE WET ACCELERATOR – fluor polymer liquid

- HUMID series for humid conditions

- START GOLDEN LINE HUMID RENOVATOR – fluor wax, purple
- START GOLDEN LINE HUMID BINDER – fluor polymer powder
- START GOLDEN LINE HUMID ACCELERATOR – fluor polymer liquid

- COLD series for cold conditions

- START GOLDEN LINE COLD RENOVATOR – fluor wax, blue
- START GOLDEN LINE COLD BINDER – fluor polymer powder
- START GOLDEN LINE COLD ACCELERATOR – fluor polymer liquid

A FEW REASONS WHY WE DEVELOPED START GOLDEN LINE POLYMER GLIDE WAX SERIES:

Suction slows down gliding

The "suction phenomenon" appears only in very humid and wet conditions and it is not caused by friction but water molecules' electromagnetic gravitation on the snow surface: part of the motion energy, which makes the skis move forward, is used for resisting this gravitation.

The suction is the most forceful in wet conditions (wide water surface), but it also appears when there is moisture on the tracks, which are being skied on frequently.

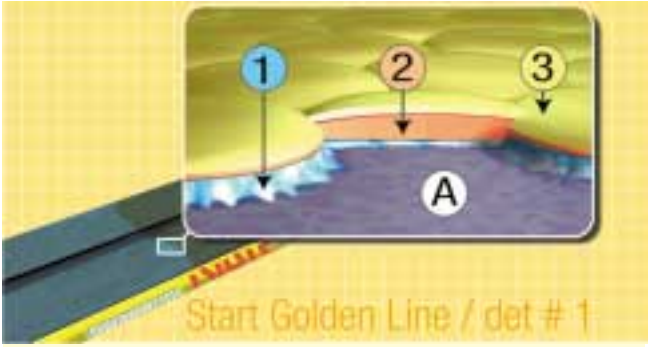
This suction can be decreased by mechanical procedures such as structuring or grooving the base. These procedures will break the solid water surface, which improves the glide in most conditions. However, this will not remove the most important factor that slows down the glide, which is the gravitation caused by water molecules.

Suction dirties the glide base

When water molecules gravitate the base towards them, some water sticks to the base and brings along absorbed dirt. The dirt absorbs into the wax, which slows down the glide even more. The glide can diminish quite remarkably farther along and the difference between the glide in the beginning and in the end can be very noticeable; even several percents. As a solution, many different types of surface coating materials such as gels have been used. This is based upon the fact that waxes wear off during the performance and the absorbed dirt goes away along the waxes. Gels only prevent the dirt from getting stuck momentarily and they only work for short distances. Aforementioned waxes cannot diminish the gravitation caused by water molecules.

Suction and hard waxes

In some very wet conditions, hard waxes (green glide waxes) have been used because the dirt do not absorb into them as easily as it does into softer waxes. Hard waxes prevent the dirt from sticking quite well, but the glide is not optimal since the surface tension becomes very high (40 dyn), which in turn creates more suction and decreases glide.



1

Renovator

The base (A) will be activated by Start Golden Line Renovator (1)

2

Binder

By using Start Golden Line Binder, the correct positive loading will be formulated. (2)

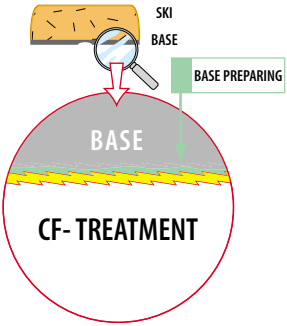
3

Accelerator

Apply a thin layer of the Accelerator polymer onto the base. The molecules of the (3) Accelerator fasten electro-magnetically to the positive loaded protons of the binder, formulating a closed, durable bond. The neutral surface of the Accelerator prevents effectively water and dirt absorption into the base.

START GOLDEN LINE – glide waxing stages:

Each stage of Start Golden Line polymer glide waxing has significance in terms of the overall impression. Each product has been chosen and tested in order to achieve the best result possible. Only Start Golden Line products should be used in the waxing process.



Stage 1:

START GOLDEN LINE RENOVATOR

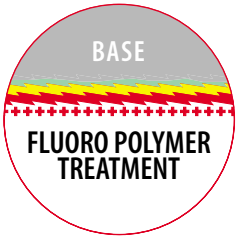
WET (red) – wet conditions

HUMID (purple) – humid conditions

COLD (blue) – cold conditions

- Melt the renovator onto the base. By dissolving the right amount of fluor you can secure an optimal attachment for next layer of wax.
- Let the wax cool down, scrape off the excess wax and brush with natural hair or nylon brush until the base structure becomes visible. Finally, wipe the base with a lint free polishing cloth in order to remove all excess material from the base.

Stage 2:



START GOLDEN LINE BINDER

WET – powder for wet conditions

HUMID – powder for humid conditions

COLD – powder for cold conditions

In this process stage, a positive (+) charge is formed onto the base by means of large molecular fluor polymers. The procedure makes the surface material stick to the base as a fine layer.

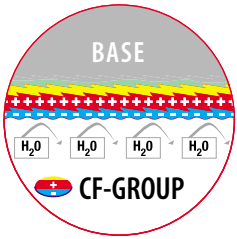
Polymer fluor powders demand very high melting temperature (+150 °C). Therefore you must spread more polymer powder on the base than other fluor powders. High melting temperature may burn the base, if there is not enough powder between the base and iron. After brushing, you notice that if you see grey points in the black base. In this case the film of the binder is not even and Accelerator will neither be perfect.

Remember this when melting polymer powders!

- Spread a thick layer of powder polymer onto the base and melt in with an iron. Note! In order to stick onto the base polymer powders need higher melting temperature than normal powders and therefore a thick layer.
- Very carefully, brush off the excess powder with a natural hair brush after it has cooled down. Polish the base by brushing vigorously with a hard nylon brush. An intensive brushing guarantees a successful end result.
- Finally, wipe off all the dust caused by the brushing. The wax layer on the base needs to be thin and even.

Note! When using Golden Line Cold series, spread a layer of Accelerator Cold liquid beneath the Cold powder.

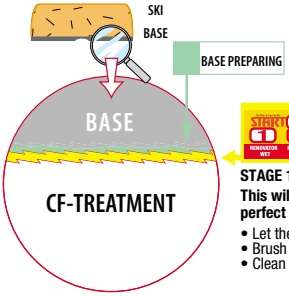
Stage 3:



START GOLDEN LINE ACCELERATOR

WET – liquid for wet conditions

- Spread a thin layer of accelerator wet liquid onto the base (6 - 8 drops for the entire base).
- Rub off the excess liquid very carefully in order to get a very thin layer on the base (ca 0,1 - 1,0 µm). The goal is to get a layer with the strength of one molecule on the surface of the base.

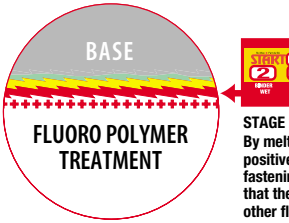


Start Golden Line- waxing step by step

STAGE 1 MELT THE RENOVATOR ONTO THE BASE

This will dissolve fluor into the base. The amount of fluor will be perfect to the binder to fasten onto the surface.

- Let the wax cool down and scrape the excess wax with acrylic scraper.
- Brush the structure in base visible with hard nylon or horse-hair brush.
- Clean the base with Start polishing cloth.

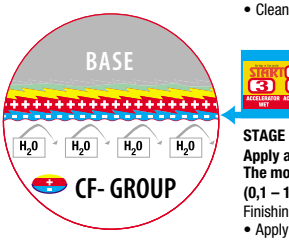


STAGE 2. BINDER POLYMER POWDER

By melting Start Golden Line Binder Polymer powder, the correct positive (+) loading will be formulated. This layer optimises the fastening of the Golden Line accelerator onto the surface. Notice, that the polymer powders require higher melting temperature than other fluor powders.

- Melt the binder onto the base
- Let the base cool down and brush then the excess powder off with hard horse-hair brush thoroughly.
- Polish the base with hard nylon brush.
- Clean the base with Start polishing cloth.

Notice! Spread a layer of Accelerator Cold under the Cold Binder



STAGE 3. ACCELERATOR LIQUID

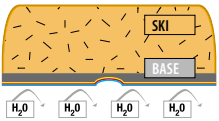
Apply a very thin layer of Accelerator liquid onto the base. The molecules formulate a very thin layer onto the base (0,1 – 1,0 µm)

Finishing should be done very accurately.

- Apply the Accelerator on the base.
- Wipe dry with polishing cloth.
- Polish the base dry and shiny with nylon brush.
- Push clean polishing cloth from tip to end. If there appears still excess liquid to the cloth, repeat brushing.
- The finished base must be dry and hard.

Spread the Accelerator Wet liquid as follows:

- 6-8 drops on base of alpine skis or snowboard



CF- GROUP

THE FUNCTION OF START GOLDEN LINE

The molecules of the Accelerator have only one negative (-) ion, each. With help of these ions they fasten electromagnetically to the positive (+) loaded protons of the binder. This formulates a closed, durable bond. (= molecular film)

- The neutral surface of the molecular film prevents effectively the electromagnetic force between water and base (= suction which diminish the glide). Water and dirt may not fasten onto the base therefore good glide lasts long.
- The film in dense, resisting water absorption into the base.
- The film formulates surface where the surface tension is very low (10-11 dyn.), which is necessary for a good glide.

Notice! The electromagnetic bond between the Binder and the Accelerator should be opened chemically by Start Polymer Cleaner. Clean the base before next waxing.

The finishing needs to be done very carefully! Remember to rub the base structures until they are completely dry.
- Rub the base with a hard natural hair brush until it's dry and wipe the base with a polishing cloth.
- Finally, polish the base with a polishing cloth: push heavily with a clean polishing cloth from top to tail (from the top of the ski to the end of the ski). Repeat the brushing and polishing if you notice that any excess wax absorbs into the cloth.

A properly finished base looks dry with a hard surface.
- Once outside polish one more time with a nylon brush.

START GOLDEN LINE ACCELERATOR
HUMID – liquid for humid conditions

- Spread a fairly good layer of accelerator Humid liquid with a sponge onto the base.
- Let it vaporize for two to three minutes and brush off the excess polymer very carefully.

This procedure creates a very thin layer on the surface of the base (ca 0,1 – 1,0 µm). The goal is to get a layer with the strength of one molecule on the surface of the base.

Do the finishing process very carefully!
- Brush with a natural hair brush until the base structure becomes visible. Then, polish with a hard nylon brush.
- Finally, polish the base with a polishing cloth: push heavily with a clean polishing cloth from top to tail (from the top of the ski to the end of the ski). Repeat the brushing and polishing if you notice that any excess wax absorbs into the cloth.

A properly finished base looks dry with a hard surface.
- Once outside polish one more time with a nylon brush.

START GOLDEN LINE ACCELERATOR
COLD –liquid for cold conditions

- Spread a fairly good layer of accelerator Cold liquid with a sponge onto the base.
- Let it vaporize for two to three minutes and brush off the excess polymer very carefully.

This procedure creates a very thin layer on the surface of the base (ca 0,1 – 1,0 µm). The goal is to get a layer with the strength of one molecule on the surface of the base.

Do the finishing process very carefully!
- After your first testing, polish the bases with a nylon brush when outside.

There are three steps (stages) in glide waxing: **base waxing, waxing for specific ski conditions and coating.**

Base waxing

The purpose of base waxing is to form a durable (long-lasting), dirt and water repellent base beneath the actual waxes. START AWG (graphite), START AG5 (purple) and AG7 (green) from the AG series are excellent base waxes. For fluor glide waxes, use START BWLF low fluor base waxes. Note! For START Black Magic molybdenum/fluor glide waxes we recommend START AG5 (purple) glide wax or BWLF low fluor base wax.

1. Make sure that the base is clean and prepared (base waxed).
2. Melt onto the base
   - START AWG graphite underneath fluorless START AG waxes.
   - START BWLF fluor wax or START ABG graphite underneath fluor waxes
   - START AG5 (purple) or START BWLF fluor wax underneath START BM molybdenum/fluor waxes
3. Scrape off the excess wax and brush the cooled base carefully with a brass brush until the base structure or grooves become visible.

Base waxing decreases the effect of heat caused by friction

Base waxing decreases the effect of heat caused by friction very effectively in high speed skiing. In addition the heat caused by friction and the pressure between the base and snow builds up water and creates liquid friction, which reduces glide.

Base waxing has a great significance for the final waxing result, particularly in enduring the glide during the performance. It should be pointed out that testing the glide wax only before the race is not enough; you should also test base waxes and see how they react to different glide waxes – which base waxes give the longest-lasting glide.

Base waxing with graphite works best for graphite-polyethylene bases (black bases). Base graphite needs to be hard enough in order to work well. Hard mixture is durable and gives a hard and tough base for waxes to be melted above.

New BWLF fluor base wax works well in humid conditions underneath fluor waxes repelling dirt and moisture. Fluor compounds in BWLF waxes formulate a hard binding with fluor waxes, melted above and secure the glide even in long distance and high speed skiing boarding.

The wax table

The relative humidity	New, fine grained snow	Old, coarse-grained snow	Coarse, dirty snow and man made snow
under 55 %	Start	AG	- glide waxes
55 %–75 %	Start	AF	- glide waxes
		Start BM	- glide waxes
75 %–100 %	Start	PHF	- glide waxes
		Start BM	- powder and block
	Start SF- powder and block		
	Start PF- powder Start	Golden Line	- serie

Waxing for specific conditions

Select your actual glide wax according to the conditions. Define the conditions as precisely as possible and then choose the right wax. If no coating is needed, glide waxing remains as the final surface of the base.

1. Define conditions and select the wax accordingly.

- When humidity is below 55 %, select a fluorless glide wax from START AG series.
- For new snow conditions, select a wax according to the temperature table.
- Coarse and wearing conditions need a harder wax; select a harder alternative from the table. E.g. when the temperature is -6 °C, select START AG7 (-8° . . . -20 °C) glide wax for coarse grained snow.
- When humidity is between 50 % and 60 %, select a low fluor glide wax from the START LF series
- For new and fine snow, select a fluor wax from the START LF series according to the temperature.
- For coarse and wearing snow, select a harder wax from the table, for colder conditions.
- When humidity is between 55 % and 75 %, select a fluor wax from the START AF series.
- For new and fine snow, select a fluor wax from the START AF series according to the temperature table.
- For coarse and wearing snow, select a harder wax. Therefore, select a molybdenum/fluor glide wax from the START BM series according to the table.
- When humidity is more than 75 %, select a fluor wax from the START PHF polymer fluor series according to the temperature table.
- When humidity is more than 85 %, select a glide wax from the START Golden Line polymer fluor series according to the humidity and temperature. WET for wet snow (0° . . . +10 °C), Humid for humid snow (0° . . . -4 °C) or Cold for cold and humid snow (-4 ° . . . -12 °C).

2. If the condition is very humid and the surface of the track compact ski jumping, large grooves or structuring are needed on the base. Check out the base and if it is smooth or structuring is not noticeable, groove the base lengthwise or make a deeper structure on the base.

3. Melt the wax onto the base and let it absorb.

4. Scrape off the excess wax with an acryl scraper. Scrape hard waxes (graphite, blue, green, BM6) when they are still warm. Let softer waxes cool down for about 5 to 15 minutes before scraping.

5. Brush off the excess wax from the cooled base with a nylon or natural hair brush until the grooves or structure are visible.

6. Finally, polish with a polishing cloth.

Cleaning of the bases

Clean the base with **Start Polymer Cleaner**, which is developed specially for the cleaning of glide waxed base.
1. Moisten the base with The Polymer cleaner.
2. Dry off the base with Start polishing cloth.

Notice! Do not use Wax Remover, it may dry off the base.

Surface waxing a.k.a. coating

Finishing process in glide waxing has a great significance in achieving the optimal glide. Glide waxes cannot create hard enough or sometimes soft enough surface in all conditions. Therefore a coating process should be utilized in order to improve glide. Coating can soften the glide wax surface, prevent water from affecting glide or harden the base in order to improve endurance. Make sure that you familiarize yourself with all coating materials and read the instructions.

Softening

After glide waxing, the base needs to be coated (especially in humid and dirty conditions) with coating materials that have a softening effect such as fluor powders (e.g. START SF, GL, PF, BM powders), fluor blocks (SF or BM fluor blocks) or polymer liquids (START Golden Line glide polymers). The glide increases because the aforementioned compounds decrease surface tension and create a dirt and water repellent layer.

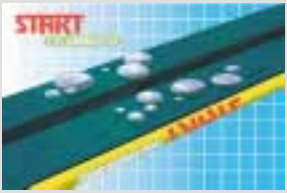
When snow surface is compact and surface snow humid, liquid friction (suction) appears between the base and snow. Then, the water caused by pressure or friction cannot escape from the surface of the snow but stays in between two solid surfaces (skis and track) causing high liquid friction. In the worst scenario, the glide can decrease significantly.

Liquid friction a.k.a. suction can be prevented with four different methods:

1. **Base waxing**
   By using graphite or molybdenum waxes a layer, which conducts heat, can be created. Less water appears because of the heat caused by friction and glide is better.
2. **Structuring or grooving the base**
   Structuring or grooving creates more air between the base and snow. An even water layer breaks down, suction decreases and glide improves.
   When structuring or grooving you must pay careful attention to the actual groomed track conditions and to what type of skiing is being done. The groomed track may be extremely packed

The glide enhancing effect of start fluor coatings

Water is not removed from the conventionally waxed base. It remains adhered between the base and snow. This causes suction and a reduction in glide.



Using Start Fluor coatings you can create a water and dirt repellent surface on the base. Surface tension of the base is reduced, and gliding properties are improved.

and slick because of water on the tracks (ski jumping). This greatly increases suction (strong structuring or grooving is needed). However, the snow beside the track may be fine (crystal snow), which requires a gentle structuring (alpine skiing).

3. **Softening – lowering surface tension**
   By lowering (softening) the surface tension, you can decrease liquid friction (suction) and improve glide. Coating is necessary when this suction is inevitable. Use fluor or fluor polymer coating waxes in order to lower the surface tension.
4. **Start Golden Line polymer waxing**
   Start Golden Line polymer glide waxing is a chemical solution, which decreases suction because the surface of the base gets neutralized and the electromagnetic force caused by water molecules, which decreases glide, gets minimized. This type of waxing weakens the force, which decreases glide, most effectively.

The following coating waxes increase glide by lowering surface tension:

- START fluor powders (SF30 and BM7)
- START fluor blocks (SF92, SF99 and BM5)
- START fluor polymer powders (PF550, PF750 and Golden Line Binder powders)
- START Golden Line Accelerator polymer liquids

A surface coated with fluor waxes prevents moist from absorbing into the wax and the glide remains good, even in long distance and high speed runs.

Hardening

When snow is coarse and very wearing, glide waxes alone cannot form a surface, which is hard and enduring enough. Waxes wear off and glide declines during the race (performance). On the other hand, sharp snow crystals penetrate into a softer wax surface and slow down speed. This problem particularly occurs on man-made snow, which is very sharp crystal shaped and wearing. When skiing boarding in these conditions, glide waxes need to be hardened with START SG9 powder.

Instruction

Sprinkle an even layer of powder onto the base, attach the powder by melting with an iron, gently scrape off the excess wax when the wax is still warm and brush the base with a hard nylon brush until the base structure becomes visible.

Hardening

Hardening Powder SG9

- Hard and durable surface
- Prevents snow crystal penetration into the wax
- The glide will be improved

Defining the conditions is crucial in order to find right waxes and wax combinations. Familiarize yourself with the conditions before selecting waxes. Remember to read the glide wax recommendation table and follow it when waxing.

9. Waxing information for junior racers

The junior racers should learn to wax their skis/snowboard already from the beginning. Learning to take care of the skis/snowboard is actually a part of training for a junior. Training with skis/snowboards, which are in good shape is necessity for learning a correct technique. Glide is as important in training as it is in races, because only this is how you can feel the feature of your equipment in the racing speed.

Waxing for junior racers may differ from the information, which is told in the waxing guide earlier. The body weight or muscle power differ much from the adult's ones, this you have to notice also when choosing new equipment. You may use many times easier solutions with juniors, basing to the physical difference between adults and juniors. Waxing may not be a compromise, but best possible glide. Notice following factors when waxing skis/snowboard for junior racers.

- **The body weight**
- **Speed in the race**
- **The pressure between skis and snow**
- **The length of the run**

Above-mentioned factors may make the waxing easier, because the runs are short and the pressure is not high under the skis/snowboard. The last coating is normally made as cold preparing.

Base waxing and the base preparing of the skis/snowboard must be done thoroughly. Good base is necessity for a good glide.

Glide wax the base with the days wax quite normally by melting the wax with wax iron. Melt and finish the wax as earlier explained.

Do the last coating always as cold waxing. Many times the Start Golden Line Accelerators are the best ones.

Glide waxing

Select the correct wax according to the relative humidity.

Humidity under 55 %	- select your glider from AG-line according to the temperature
Humidity 55 %-75 %	- select glider from AF-line, on new snow conditions
	- select glider from BM-line, on coarse-grained or artificial snow
Humidity over 75 %	- select glider from PHF-line according to the temperature

Glide waxing

1. Melt selected wax onto the base waxed base
2. Let cool down and scrape the excess wax with a acrylic scraper
3. Brush the structure of the base visible with hard nylon- or horse-hair brush
   (hard waxes, like green, blue and BM6 gliders you may brush with bronze- or brass brush)
4. Polish with a soft nylon brush

Notice! On the thoroughly waxed glider, the coating waxes last longer.

Glide coatings

Humidity under 55% - no coating
Humidity 55-75% - Start SF- or BM- fluor blocks or powders as coating waxes
Humidity over 75% - Start Golden Line Accelerator, according to the temperature as coating wax

Apply the powders and the blocks cold onto the base.
Rub the coatings on the base with a waxing cork.
Polish the base with a soft nylon brush.

Applying of the Accelerator liquids

1. Select the correct Accelerator liquid according to the temperature.
2. Apply a layer of selected Accelerator liquid following the users info within the package.
3. Dry and polish the base with a soft nylon brush and polishing cloth.
4. The finished base must feel dry and hard.

Dear reader.
The waxing guide, which you have just red, gives you information of Start waxes. We wanted to explain you the special features of Start waxes and give you information how, and on which conditions to use these waxes. There are several different gliders in Start collection and the purpose of this waxing guide is to give you detailed information of the use of Start waxes. The more you know, the less you need to test and wonder, which wax to use. You can select the correct wax according to the information, which you find in this waxing guide. You spare your time and efforts, when you can just follow our recommendations in selecting the wax, without hard testing.

The recommendations base on over 20 years experience in producing and testing ski waxes. We hope that the Waxing guide helps you in waxing and specially finding the correct wax and makes the waxing easier to you.

Experienced service man collects and writes down own solutions. This is why we reserved space to the end of the book to your own notices. Write down your own waxing and wax combinations as well as the detailed information of the conditions. Note also the comments of the users, to whom you have waxed the skis/snowboard. You can later check the used waxing from you notices. This may be very fruitful afterwards.

More information of the waxes and also of the used wax combinations you will find in our home page www.startskiwax.com

Examples

Conditions:	*Base waxing:*
Air +4 °C, wet, dirty and coarse snow, slight rainfall, water on the snow surface.	**ALTERNATIVE I** Melt BWLF base wax onto the base, let it cool down, scrape it off and brush the base with a brass or copper brush and finish with a nylon brush.
	ALTERNATIVE II Melt BWLF graphite onto the base, scrape off when warm, let it cool down and brush with a brass brush until the base structure becomes visible. Finish up with a nylon brush.
Air +2 °C, wet, fine and coarse snow mixed together. The air has warmed up quickly from below zero to above zero.	**ALTERNATIVE I** Melt BWLF base wax onto the base, let it cool down, scrape off with a brass or copper brush until the base structure becomes visible. Brush with a hard natural hair brush and finish up with a nylon brush.
	ALTERNATIVE II Melt BWLF base wax onto the base, let it cool down, scrape off and brush with a brass or copper brush until the base structure becomes visible. Brush with a hard natural hair brush and finish up with a nylon brush.
Air +0 °C, snow +/-0 °C, snowfall, snow surface gets a little shiny (slippery).	**ALTERNATIVE I** Melt BWLF base wax onto the base, let it cool down, scrape off and brush with a brass or copper brush until the base structure becomes visible. Brush with a hard natural hair brush and finish up with a nylon brush.
	ALTERNATIVE II Melt BWLF base wax with an iron, scrape off when warm and let it cool down. Brush with a brass brush until the base structure becomes visible. Finish up with a nylon brush.

Glide waxing:	*Surface waxing:*
Melt PHF200 (+10°…+1 °C) polymer fluor glide wax onto the base, let it cool down and scrape it off. Brush with a copper brush until the base structure becomes visible. Finish with a hard natural hair and nylon brush. **Note!** You can also use START Golden Line Wet polymer fluor glide wax series.	Spread a thick and even layer of PF550 (+5°…-3 °C) polymer fluor powder onto the base. Melt with a hot iron (+160 °C) by using even strokes. The surface, where the glide wax has been applied, should remain dark. Let it cool down completely. Finish well with a hard natural hair brush and finish with a nylon and finishing brush. Finally, wipe the base with a polishing cloth.
Melt AF20 (+10°…-1 °C) fluor glide wax onto the base, let it cool down, scrape off and brush with a copper brush until the base structure becomes visible. Finish up with a hard natural hair and nylon brush. **Note!** When the snow is very coarse and dirty, use BM2 (+10°…0 °C) as the glide wax and BM7 (+10°…-3 °C) fluor molybdenum powder as the surface wax.	Spread an even layer of SF30 (+5°…-5 °C) fluor powder onto the base. Melt it with an iron by using even strokes. The surface needs to remain dark. Let I cool off completely. Brush with a hard natural hair brush and finish up with a nylon and finishing brush very carefully.
Mix AF30 (+10°…-1 °C) and AF50 (-1°…-8 °C) fluor glide waxes by melting them in the 70/30 ratio. Let it cool down, scrape off and brush with a copper or brass brush until the base structure becomes visible. Finish up with a hard natural hair and nylon brush very carefully.	Rub lightly a layer of SF99 (+9°…-9 °C) fluor block onto the base and spread an even layer of SF30 (+5°…-5 °C) fluor powder on the top of it. Melt with an iron by using even strokes. The surface needs to remain dark. Let it cool down completely. Brush with a hard natural hair brush and finish up with a nylon and finishing brush.
Melt PHF400 (+1°…-1 °C) polymer glide wax onto the base. Let it cool down, scrape off and brush with a copper brush until the base structure becomes visible. Finish with a hard natural hair and nylon brush. **Note!** Alternatively, you can use START Golden Line Wet fluor polymer glide series.	Spread a thick and even layer of PF550 (+5°…-3 °C) polymer fluor powder. Melt with a hot iron (ca. +160 °C) by using even strokes. The surface needs to remain dark (black). Let it cool off completely. Brush with a hard natural hair brush and finish up carefully with a nylon and finishing brush. Finally, wipe the base with a polishing cloth.
Melt PHF400 (+1°…-1 °C) polymer fluor onto the base. Let it cool down, scrape off and brush with a copper brush until the base structure becomes visible. Finish up with a hard natural hair and nylon brush.	Spread a thick and even layer of PF550 (+5°…-3 °C) onto the base. Melt with a hot iron by using even strokes. The surface needs to remain dark. Let it cool down completely. Brush with a hard natural hair brush and finish up carefully with a nylon and finishing brush. Repeat the powdering one more time. Finally, wipe the base with a polishing cloth.
Melt AF30 (+10°…-1 °C) fluor wax onto the base. Let it cool down, scrape off and brush with a copper brush until the base structure becomes visible. Finish up with a hard natural hair and nylon brush. **Note!** Alternatively, you can use START Golden Line Humid fluor polymer glide series.	Rub lightly a layer of SF99 (+9°…-9 °C) fluor block and spread an even layer of SF30 (+5°…-5 °C) fluor powder on the top of it. Melt with an iron by using even strokes. The surface needs to remain dark. Brush with a hard natural hair brush and finish up with a nylon and finishing brush.

Examples

Conditions	*Base waxing*
Air -1 °C, coarse, dirty snow. The air temperature has just fallen below freezing point. Snow's humidity is more than 80 %.	**ALTERNATIVE I** Melt BWLF base wax onto the base, scrape off when warm and let it cool down. Brush with a brass brush until the base structure becomes visible. Repeat the aforementioned procedure one more time.
	ALTERNATIVE II Melt BWLF base wax onto the base, scrape off when warm, let it cool down and brush with a brass brush until the base structure become visible. Repeat the aforementioned procedure one more time.
Air -1 °C, new fine snow, light snowfall during the performance. The air has warmed up since the day before. Air humidity is 60 – 70 %.	**ALTERNATIVE I** Melt BWLF base wax onto the base, let it cool down, scrape off, and brush with a brass or copper brush until the base structure become visible. Brush with a hard natural hair and finish up with a nylon brush.
	ALTERNATIVE II Melt BWLF base wax onto the base, scrape off when warm, let it cool down and brush with a brass brush until the base structure become visible. Finish up carefully with a nylon brush.
Air -5 °C, old fine snow, humidity below 65 %. The temperature has stayed below freezing point for a long period (time).	**ALTERNATIVE I** Melt BWLF base wax onto the base, let it cool down, scrape off, and brush with a brass or copper brush until the base structure become visible. Brush with a hard natural hair and finish up with a nylon brush.
	ALTERNATIVE II Melt BWLF base wax onto the base, let it cool down, scrape off, and brush with a brass or copper brush until the base structure become visible. Brush with a hard natural hair and finish up with a nylon brush.

Glide waxing	*Surface waxing*
Melt PHF400 (+1°…-1 °C) polymer fluor glide wax with an iron and let it cool down completely. Scrape off and brush with a copper brush until the base structure becomes visible. Finish up with a hard natural hair and nylon brush. **Note!** Alternatively, you can use START Golden Line Wet glide wax series.	Spread a thick layer of PF550 (+5°…-3 °C) polymer fluor powder. Melt with a hot iron by using even strokes. The surface needs to remain dark. Let it cool down completely. Brush with a hard natural hair and finish up with a nylon and finishing brush. Finally, wipe the base with a polishing cloth.
Melt AF50 (-1°…-8 °C) fluor glide wax with an iron. Let it cool down and scrape off. Brush with a copper brush until the base structure becomes visible. Finish up with a natural hair and nylon brush. Use BM4 (0°…-6 °C) fluor molybdenum wax as the actual glide wax if the snow is very hard and dirty.	Rub lightly a layer of SF99 (+9°…-9 °C) fluor block and spread an even layer of SF30 (+5°…-5 °C) fluor powder on the top of it. Melt with an iron by using even strokes. The surface needs to remain dark. Brush with a hard natural hair brush and finish up with a nylon and finishing brush. Alternatively, use BM7 (+10°…-3 °C) fluor molybdenum powder as the surfacing wax depending on the snow's dirtiness.
Melt PHF400 (+1°…-1°C) polymer fluor glide wax onto the base and let it cool down well. Scrape off, brush with a copper brush until the base structure becomes visible and finish up with a hard natural hair and nylon brush. **Note!** Alternatively, you can use START Golden Line Humid glide wax series	Spread a thick layer of PF550 (+5°…-3 °C) polymer fluor powder. Melt with a hot iron by using even strokes. The surface needs to remain dark. Let it cool down completely. Brush with a hard natural hair and finish up with a nylon and finishing brush. Finally, wipe the base with a polishing cloth. When the snow is very packed upon the tracks, you can use SF30 (+5°…-5 °C) fluor powder as the surface wax.
Melt AF50 (-1°…-8 °C) fluor glide wax with an iron. Let it cool down and scrape off. Brush with a copper brush until the base structure becomes visible. Finish up with a natural hair and nylon brush.	Rub lightly a layer of SF99 (+9°…-9 °C) fluor block and spread an even layer of SF30 (+5°…-5 °C) fluor powder on the top of it. Melt with an iron by using even strokes. The surface needs to remain dark. Brush with a hard natural hair brush and finish up with a nylon and finishing brush. Spread a thick and even layer of SF99 fluor powder. Melt it by using a polishing cloth attached to the iron (between the iron and wax). Iron the wax by using slow and even strokes. Let it cool down well. Brush lightly with a hard natu-ral hair brush and finish up with a nylon and finishing brush.
Melt AF50 (-1°…-8 °C) fluor glide wax with an iron. Let it cool down and scrape off. Brush with a copper brush until the base structure becomes visible. Finish up with a natural hair and nylon brush.	Rub lightly a layer of SF99 (+9°…-9 °C) fluor block and spread an even layer of SF30 (+5°…-5 °C) fluor powder on the top of it. Melt with an iron by using even strokes. The surface needs to remain dark. Brush with a hard natural hair brush and finish up with a nylon and finishing brush. Spread a thick and even layer of SF99 fluo r powder. Melt it by using a polishing cloth attached to the iron (between the iron and wax). Iron the wax by using slow and even strokes. Let it cool down well. Brush lightly with a hard natu-ral hair brush and finish up with a nylon and finishing brush.
Melt LF06 (-3°…-8 °C) fluor glide wax with an iron. Let it cool down and scrape off. Brush with a copper brush until the base structure becomes visible. Finish up with a natural hair and nylon brush.	Spread a thick and even layer of SF99 fluor block. Melt it by using a polishing cloth attached to the iron (between the iron and wax). Iron the wax by using slow and even strokes. Let it cool down well. Brush lightly with a hard natu-ral hair brush and finish up with a nylon and finishing brush.

Examples

Conditions	*Base waxing*
Air -10 °C, fine old snow, hard packed snow. Humidity 65 - 75 %.	**ALTERNATIVE I** Melt BWLF base wax onto the base, scrape off when warm, let it cool down and brush with a brass brush until the base structure become visible. Finish up carefully with a nylon brush.
	ALTERNATIVE II Melt AG7 green (-8 . . . -20 °C) onto the base, scrape off immediately when warm, let it cool down and brush with a brass brush until the base structure become visible. Finish up carefully with a natural hair and nylon brush.
Air -10 °C, old, coarse and dirty snow. Snow crystals are very hard. Humidity more than 75 %. Tracks are mushy (tracks are grounded up).	**ALTERNATIVE I** Melt BWLF base wax onto the base, scrape off when warm, let it cool down and brush with a brass brush until the base structure become visible. Finish up carefully with a nylon brush.
	ALTERNATIVE II Melt BWLF base wax onto the base, scrape off when warm, let it cool down and brush with a brass brush until the base structure become visible. Finish up carefully with a nylon brush.
Air -16 °C, old and fine snow. Humidity 50 %. After a long cold period, the air has warmed up from extremely cold weather. Snow crystals are hard and sharp.	**ALTERNATIVE I** Melt AG7 green (-8° . . . -20 °C) glide wax with an iron. Scrape off immediately when warm and let it cool down. Brush with a brass or copper brush until the base structure becomes visible. Finish up with a hard natural hair and nylon brush.
Air -17 °C, coarse, old snow, partly mixed with man-made snow and in some parts the snow is old and fine. Humidity 60 %.	Melt AG7 green (-8° . . . -20 °C) onto the base, scrape off when warm, let it cool down and brush with a brass brush until the base structure become visible. Finish up carefully with a nylon brush. Repeat the procedure one more time.

Glide waxing	*Surface waxing*
Melt AF70 (-7°…-15 °C) fluor glide wax with an iron. Scrape off when warm and let it cool down. Brush with a copper brush until the base structure becomes visible. Finish up with a natural hair and nylon brush.	Spread a thick and even layer of SF99 fluor powder. Melt it by using a polishing cloth attached to the iron (between the iron and wax). Iron the wax by using slow and even strokes. Let it cool down well. Brush lightly with a hard natural hair brush and finish up with a nylon and finishing brush. **Note!** Alternatively, you can use PF750 (-3°…-10 °C) polymer fluor powder as the surface wax.
Melt LF08 green (-8°…-30 °C) glide wax with an iron. Scrape off immediately when warm and let it cool down. Brush with a brass or copper brush until the base structure becomes visible. Finish up with a natural hair and nylon brush.	Spread a thick and even layer of SF99 fluor block. Melt it by using a polishing cloth attached to the iron (between the iron and wax). Iron the wax by using slow and even strokes. Let it cool down well. Brush lightly with a hard natural hair brush and finish up with a nylon and finishing brush.
Melt PHF800 (-6°…-12 °C) polymer fluor glide wax onto the base and let it cool down well. Scrape off, brush with a copper brush until the base structure becomes visible and finish up with a hard natural hair and nylon brush. **Note!** Alternatively, you can use START Golden Line Cold glide wax series.	Spread a thick layer of PF750 (-3°…-10°C) polymer fluor powder. Melt with a hot iron by using even strokes. The surface needs to remain dark. Let it cool down completely. Brush with a hard natural hair brush and finish up with a nylon and finishing brush.
Melt BM6 (-6°…-25 °C) fluor molybdenum glide wax onto the base, scrape off immediately when warm and let it cool down. Brush with a brass or copper brush until the base structure becomes visible. **Note!** Alternatively, you can use green LF08 (-7°…-15 °C) glide wax instead of BM6.	Spread and mix together SF30 (+5°…-5 °C) fluor powder and SG9 hardening powder in the 60/40 ratio and melt with an iron. Scrape off lightly and let it cool down. Brush with a copper brush by using light strokes until the base structure becomes visible and finish up with a hard natural hair and nylon brush.
Spread a thick and even layer of SF99 fluor block. Melt it by using a fast stroke with a hot iron. Be careful not to burn the base (damage the base). Let it cool down well. Brush lightly with a hard natural hair brush and finish up with a nylon and finishing brush.	If the surfaces of the snow is hard packed, brush lightly with a brass brush by using just one stroke from the top to the tail (from the top of the ski to the end). Finish up with a finishing brush.
Melt BM6 (-6°…-25 °C) fluor molybdenum glide wax onto the base, scrape off immediately when warm and let it cool down. Brush with a brass or copper brush until the base structure becomes visible.	Spread a thick and even layer of SF99 fluor powder. Melt it by using a fast stroke with a hot iron. Be careful not to burn the base (damage the base). Let it cool down well. Brush lightly with a hard natural hair brush and finish up with a nylon and finishing brush.

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HANDY

- No waxing tools needed
- Easy to wipe onto the base
- Dries up in some minutes
- The base needs no brushing, snow makes the dope film even within the first 500 meters

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PRACTICAL

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- Cleans the base before fastening.
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