

START®

The Feeling for Snow

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Waxing guide
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Successful waxing enchases your skiing enjoyment!

Cross –country skiing is equipment sport, particularly in the elite level.

Cross-country skiing is both a leisure and competitive sport. Fortunately, the development of ski equipment has eased and improved the waxing process, especially among leisure skiers. We have glide cloths and liquid fast gliders along with grip tapes and liquid grip waxes. So, the leisure skiers can enjoy their skiing easier. By means of these new products, cross-country skiing has become easier and getting involved with this unique form of exercise has turned out to be less complicated than before.

On the other hand, in the field of competitive skiing the demand for higher quality products has exhilarated the supply, which in turn has increased the volume and price of wax production. As a wax manufacturer, this has established new challenges for us when trying to maintain our promise of excellence. In addition to producing high quality ski waxes, we are committed to provide information on how to use our products and guide our users in selecting right waxes. Conditions play a huge role in finding the right combination of waxes. Therefore we have come up with this wax guide to provide you as a user with more detailed information about the usage of our waxes. We offer product user recommendations so that you can better succeed in your waxing with Start products and thus enjoy skiing more. We also want to describe various ski conditions and bring solutions in defining them.

Waxing in the elite level is an interesting and challenging task, which requires constant self-improvement and wide product knowledge. A wax professional is usually alone and facing hard choices. To make things worse, information about waxes from various brands is scarce and there are too many waxes to choose from. Therefore this wax guide is meant to ease your wax selection and improve your success rate. In this guide, we are bringing you wax selections that have proved to be successful for many years. The fact is that many new innovations do not supersede old and safe choices, particularly in cold weather conditions.

There is a section in this wax guide where we depict various wax selections and demonstrate how to wax for different conditions. Each weather condition is unique and there is no guaranteed way of succeeding every time. All of our tips in this guide are based upon our service team's professional experience and expertise. A new season will bring new snow and we are constantly learning and experiencing more, which may even be contradictory to our previous knowledge. All instructions are only meant to guide you in the right direction and you should always do your own testing. By combining your own experience with our professional guidance you will find the best solution to your waxing problems.

In addition to waxing, you need to take the base structuring into consideration. All ski service teams are paying more attention to this and it is still a mystery to most of us, but something that should be taken seriously. We will introduce a brand new Start structuring tool which can be used when structuring your ski bases and thus for improving the glide of your skis. Start structuring tool is a result of comprehensive research and testing and it is now available for public. You will find more information about structuring in this wax guide

I wish you a great skiing experience and success in your waxing!



Jukka Järvinen
Managing Director, CEO

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Safety instructions

Different fluoro combinations are starting to be used as wax rawmaterials. This is why it is very important to know safe way to use waxes. When buying waxes be sure that there are user instructions and proper product information with. Normally familiar and well known trade mark ensures quality and safety for use.

Follow the instructions below when using fluorinated waxes.

Avoid too high temperatures

By using iron in waxing avoid too high temperatures, because overheating sets toxic gases free.

Take care of air condition

Inhaling fluorinated particles and gases is harmful for your health. Take care of air condition and use safety mask when ironing or brushing fluorinated waxes.

Do not use gas flames or open fire

The waxing cabin it is forbidden to use gas flames or open fire, neither smoking is not allowed.

Remember tidiness

Wash hands and clean clothes after waxing. There might be fluorinated particles or dust remains in the clothes.

Safety instructions for flying

Items which are likely to endanger the aircraft or persons or property on board the aircraft, such as those specified in the International Civil Aviation Organisation (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air and the International Air Transport Association (IATA) Dangerous Goods Regulations (for further information contact airport or flying companies).

This means that taking flammable products like wax removers, liquid gliders and liquid kick waxes is prohibited on the airplane. Also fluorinated powders and other products without sufficient clearance of consumption may be removed from baggage.

List of the products not allowed to take to aeroplane

- Wax removers
- Gliding zone cleaners
- Silicons or ice preventing products
- Ultra Liquid Glider
- Ultra Liquid Kick Wax
- BMR9 Glider
- SFR300 Glider
- Golden Line Humid and Cold Liquids

Instruments needed for waxing

Waxing Table or stand: For XC-skis solid stand with ability to fasten skis properly.

Fasten at the binding to avoid any risk of damaging the sides of the ski. For Alpine and Jumping skis proper attachments to bind the skis.

Waxing apron: to protect clothing from waxing residue and dust

Waxing gloves: to protect skin

Waxing iron: Iron ment for waxing has a thicker base and more precise thermostat than a normal iron to keep the temperature even.

Structure device: for structuring the gliding zones

Scrapers: XC-scraper for removing kick wax, Acryl scraper for gliders, Groove scraper for removing wax from groove

Brushes: Brass, copper and steel brush to remove wax from base structuring. Nylon to polish gliders, powders, blocks and polymer liquids. Natural hair brush to open the structure. Note: For gliders and powders always use specific brushes. If there are lot of skis to work with, using roto brushes will make the work easier.

Hot air gun: for warming waxes

Sanding paper: Different roughnesses (80-360)

Fiber tex for finishing and cleaning

Corks: Divinycell cork for kick waxes, Nature for coatings

Wax removers for cleaning the base and removing the kick waxes.

Polymer cleaner for cleaning gliding zones and removing polymer gliders

Thermometer: Thermo- and/or hygrometer

Safety mask equipped: with gas and dust filter (A and P2 categories)



3. Base preparation

Base preparation for new skis

Proper preparation for a new ski is criteria for further success in the waxing and using the ski. We recommend that the new skis are not used or grinded before proper preparation. Basic preparation is done by using Base Waxes made for this use and which are soft enough to be well absorbed to the base.

Check new skis to control possible failures in manufacturing.

1. Wipe the bases with wax remover moistured fiber tex.
2. Melt Start BW-base wax or SW service wax on the base.
3. Absorb the wax in the base with the mild (110 C) temperature moving the iron several times back and forwards on the base.
4. Scrape all removable warm wax with sharp acryl scraper.
5. Repeat the procedure with Start BW-base wax 2-3 times, but let the wax cool down before scraping.
For graphite bases we recommend to use Start BWG-graphite base wax 1-2 times after base preparing. After this skis are ready for glide waxing.

Base preparation for used skis

Preparation for used skis is similar with new skis, but before base waxing the need for possible grinding should be checked. Grinding removes old scratches and refreshes the structuring for the bases. Base waxing is always done after grinding and during the season when needed.

Using HFBP-Base Pulver

Start HFBP-high fluor base powder is used to prepare the base for absorb high fluorinated gliders and powders. It has been developed to make the base more moisture and dirt resistance. The fluoro molecule reacts with base molecules to create durable binding between wax and base. HFBP melts in very low temperature (max 75 C) and this is why it suits well for preparing less waxed bases. Use always first BW-base wax to all kind of bases. After done this two times continue with BWLF low fluorinated base wax and then you can use HFBP base powder.

- Melt HFBP-base powder to clean and well prepared gliding bases.
Remember low iron temperature (max.75 C)
 - Brush removable wax away with Copper brush
 - Finish by polishing carefully with Nylon brush
 - Repeat the procedure if needed
- Now the gliding bases are ready for fluorinated gliders



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Actions to take notice of before competitions

Reserve waxing facility, rather as close to the starting area as possible. At the important competitions this is normally done by an organizer, but if not then e.g. by accommodation. Racing skis can be waxed with base gliders in the evening before race, but gliders and finishing waxes must be chosen close to the start of the due to the snow conditions and the tests made.

Equipment needed

- measuring equipment
 - Thermometer
 - Hygrometer
- test skis 3-5 prs, Skating
- test skis 1-3 prs, classic
- light gauges or time measurement equipment
- waxing and structuring tools

Defining conditions

- Snow conditions
 - type of snow: new, coarse-grained, old, fine, man made, dirty, clean etc.
 - last time snowed
 - snow temperature
 - weather changes in last days (got cold / warm)
- Weather and possible changes during the competition
 - Air temperature
 - temperature at the same time day before competition
 - changes in condition during last 24 hours
 - evaluation for sun effect during the race
 - sunny/shadow places in the racing route
 - possibility for rain/snow fall
 - wind effect

Choosing wax

- Analyze the test results
- Evaluate the effect of the weather changes
- Length of the competition
 - Spint
 - Long lasting competition, demand durable wax
- Evaluate fast change in snow conditions

Actions after competition

- Test skis are cleaned with service wax (SW-glider) and waxed with BWLF-low fluorinated base wax
- Clean race skis. Use wax remover for kick wax and soft glide wax for gliding zones (SW-glider) and wax for protection with BWLF-low fluorinated glider .

Gliding test

Calibration

Before the actual test it is important to calibrate test skis. This means that the difference between the skis must be determined for each snow condition. Test skis (3-5 prs) should be as similar as possible with stiffness, base material and base structure.

Skis are waxed with the same glider e.g. LF or BWLF glider due according to the temperature.

A good testing place is not windy and not crowded by other skiers. Testing track should be straight and gliding phase should last 5-10 seconds with speed 5-10 m/s.

Skis are marked with numbers and skied down always in same order. Skiing position and clothing must be consistent in every round.

Every ski is skied once as zero round and after that five measured rounds. E.g. skis can be tested in orders 1,2,3,4,5,1,2,3,4,5...etc. or pair 1,2,3,4,5,4,3,2,1...etc.

The distribution in times must be evaluated. This means that the best and worst time are not calculated to the average time (3 middle times are counted and divided with 3 to get the average time). After figuring out the average time for each pair of ski, the coefficient number needs to be counted to each pair. This is made by dividing the average times for all pairs with best average time (difference between pairs of skis).

Glide testing

Test skis are waxed according to the respective gliders considered for snow condition. Testing is made as in calibrating session, first zero round and then testing rounds.

Testing ought to be done as quickly as possible to avoid any changes during the session. The characteristics needed to ski uphill will be felt out by skiing back to the gliding test start place.

When all rounds are skied and the average times have been counted, the results are multiplied with the coefficient number. Due to this operation the best wax is found.

Fastest time is the best wax.



Start Testing table						
Date:		Time:			Location:	
Snow:	<input type="checkbox"/> Snow fall	<input type="checkbox"/> New	<input type="checkbox"/> Fine	<input type="checkbox"/> Old	<input type="checkbox"/> Coarse-grained	<input type="checkbox"/> Man made <input type="checkbox"/> Dirty
Track:	<input type="checkbox"/> Very soft	<input type="checkbox"/> Soft	<input type="checkbox"/> Hard	<input type="checkbox"/> Very hard	<input type="checkbox"/> Icy	<input type="checkbox"/> Moisture reflecting <input type="checkbox"/> Dirty
Wind:	<input type="checkbox"/> Calm	<input type="checkbox"/> Weak	<input type="checkbox"/> Moderate	<input type="checkbox"/> Hard	<input type="checkbox"/> Along	<input type="checkbox"/> Against <input type="checkbox"/> Side
Air temperature:		Snow temperature:			Air humidity:	
CALIBRATION						
Pair n:o:	1	2	3	4	5	6
ROUNDS	1					
	2					
	3					
	4					
	5					
Average time:						
Coefficient:						
Best time:						

WAX TESTING						
Pair n:o:	1	2	3	4	5	6
Base wax:						
Glider:						
Coating:						
ROUNDS	1					
	2					
	3					
	4					
	5					
Average time:						
Coefficient:						
Best time:						

6. Choosing glider

Choosing glider

Defining snow conditions

Define and evaluate snow conditions and choose waxes to be used based on this. Note follow fact by evaluation:

- Air temperature, evaluate possible changes during the race
- Snow temperature. Snow warms up slower than air during the day. The snow will remain colder than air.
- Air humidity. If humidity is high the snow will be moistured too. Exeption for this is when it has been very cold for long time, the snowsurface is dry and snow crystals unnormal hard and sharp.
- The consistency of the track. If the track is made of man made snow, it consists more moisture than nature snow and is more abressive and coarse-garined.

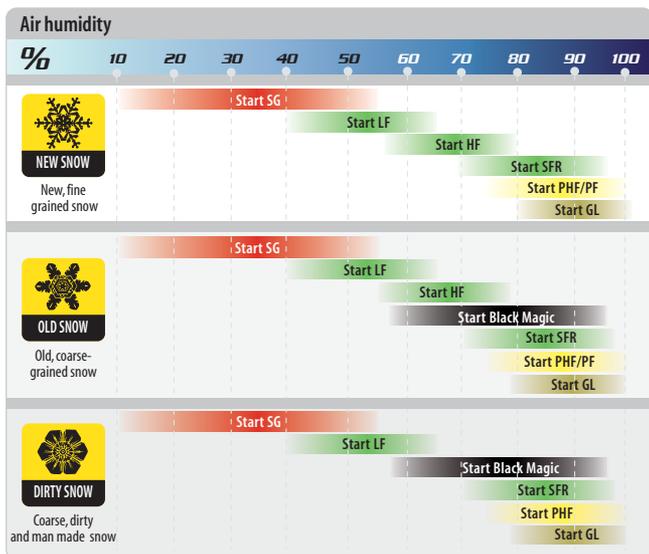
6

If you don't have measuring equipments, request for temperature and humidity information from the competition organizer. They tell you how the track is made and from which kind of snow. Snow conditions you can determine yourself. Based on these facts you can select right waxes to use.

Controlling the humidity will help you to choose glider between fluorinated and normal gliders. Also the type of snow helps you to pick up suitable wax. Start has special range of gliders for different types of snow.

The following chart will show the current ranges for different waxes. START-product range consists of six different glider ranges, which have been developed based on long research and test work to get best possible material combinations.

Glider choosing chart:



START SG-Gliders

When humidity is lower than 45 %, choose glider from non-fluorinated SG-range due to the temperature. Used as racing and training gliders and under the fluorinated gliders.

Start SG -range

- SGG graphite
- SG2 white (+10 °...-1 °C)
- SG4 violet (-1 °...-7 °C)
- SG6 blue (-7 °...-12 °C)
- SG8 green (-10 °...-30 °C)

SG-Gliders do not include silicons or any other additives. This makes them to suit well as base gliders under the fluorinated waxes.



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START LF low fluorinated gliders

When humidity is 40-60%, choose low fluorinated glider from START LF-range. LF-gliders are used as racing and training gliders and suitable to use under other fluorinated gliders.

START LF -gliders

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



START HF high fluorinated gliders

When humidity is 55-75%, choose high fluorinated glider from START HF-range due to the temperature. HF-gliders are mostly used in new and varying snow.

Start HF -gliders

- HFG fluor graphite
- HF20 white (+10 °...0 °C)
- HF40 red (0 °...-3 °C)
- HF60 purple (-2 °...-7 °C)
- HF80 green (-7 °...-25 °C)



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6. Choosing glider

START PHF Polymer Fluor -Glidens

When humidity is over 75% choose polymerfluorinated glider from START PHF-range due to the temperature.

START PHF-Glidens

- PHF200 Yellow (+10 °...+1 °C)
- PHF400 Red (+1 °...-1 °C)
- PHF600 Violet (-1 °...-6 °C)
- PHF800 Blue (-6 °...-12 °C)

START PHF-range is build of that kind of fluor polymers, which give alone very good gliding features.

Different types of fluors due to the snow conditions

Different snow conditions require different type of fluors.

Each fluoro will perform the best in its own conditions. Comounding right types of fluor and research and test them has been difficult work. As result of this work we have developed PHF-range.

Co-operation with Finish Ski Association Service Team

The testing and development work was done in co-operation the Finish Ski Association's Service team. Success at the Olympic Games and World Cup Races gives good examples for the characteristic of PHF-range. Gliders are basicly hard enough and durable suiting well under the powders creating together very good glide and solid surface to prevent moisture and dirty.

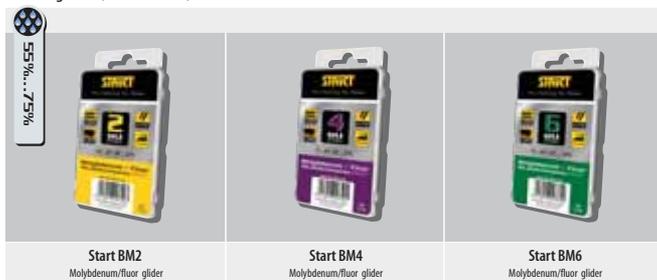


START Black Magic (BM)-molybdenum/fluor gliders

START BM-glidens consist of molybdenum fluor and are used mostly in old, coarse-grained and dirty snow when humidity is high (55-75%). Working very well especially for man made snow.

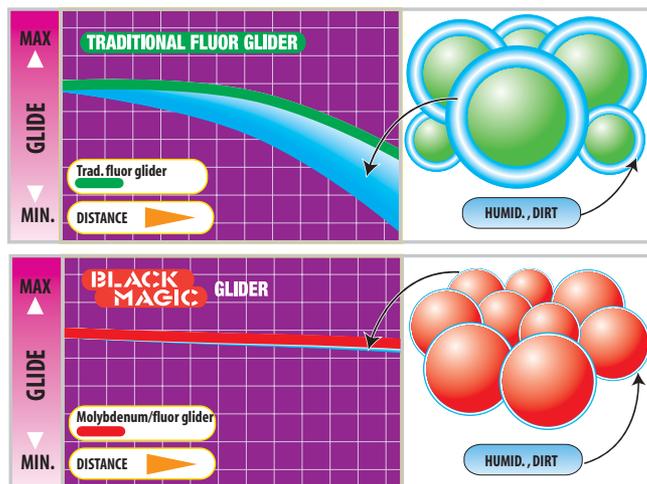
START BM-range:

- BM2 yellow (+10 °...0 °C)
- BM4 purple (0 °...-6 °C)
- BM6 green (-6 °...-25 °C)



Superior glide for difficult snow conditions

The more challenging and difficult the conditions are, the more benefits there will be from using molybdenum. The wax compound's tenacity creates an effective cover against dirt and moisture. In 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 absorbent in to the ski base by the surface wax layers, leading to a rapid decline in glide.



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

Glide waxing

Glide waxing consists of three phases: base glide waxing, glide waxing and finishing.

Base waxing

The purpose of base waxing is to create a durable dirt and moisture preventing primer work very well. For this purpose Start SGG (Graphite) or Start SG6 (blue) gliders. Under the fluorinated waxes are mostly used Start HFG-fluor graphite or BWLF-low fluorinated base glider. Note! Start LF08 (green) or BWLF low fluorinated gliders are recommended under the Black Magig- molybdenumfluoro gliders.

- Be sure that the base is dry and clean before starting waxing
- Primer the base
 - Start SGG Graphite under the non fluorinated SG-glidens
 - Start HFG fluor graphite or BWLF fluorinated gliders
 - Start LF08 (green) or BWLF fluorinated glider under the Start BM-molybdenum fluor gliders
- Scrape extra wax away and use Brass brush to clean the structure or rills of the base.

Glide waxing

Try to define specific snow conditions very carefully to get best possible knowledge to choose glider. If special finishing is not needed, the glider will be the finishing layer.

If conditions are very wet and the track is compact, a lot of structure is needed in the base. Check the base, if it is even or there is minor structure, use structure tooling to make bigger structures to optimize gliding features.

1. Melt glider to the base with waxing iron and let it absorb well.
2. Scrape extra wax away with acryl scraper. Hard gliders (graphite, blue, green and BM6) can be scraped warm.
3. Brush the base after scraping very well (hard gliders first with steel, copper or brass brush).
4. Finish the brushing with nylon or natural hair brush to clean the structuring in the base.
5. Polish with fibertex to get the brushing dust away.

Hardening

When the snow is hard and coarse-grained, the glider alone is not able to create a surface tight enough. On the other hand, sharp snow crystals rub the softer glider in the base and make friction which slows down the speed. This is common with man made snow. In this kind of snow condition, it is worth using a START SG9 hardener powder to get durable gliding surface.

Glide waxing:



Start SG9 - Hardener powder

Start fluor powders, blocks and liquids

Fluor powders and liquids are made for finishing the waxing and to reduce the tension between the water film and base. Especially when the track is compact and the humidity is high (>75%). Snow might be new and will turn compact under the base preventing the water film to escape. This increases the suction effect caused by too thick water film. In disciplines using same track (xc, jumping) the glaze effect of the surface can be noticed after some runs. This is a mark of constant water film. This will cause a suction effect which can be reduced with top finishing fluor products, base structuring or Start Golden line polymer gliders. Waxing can be made according to the duration of the event with hot or cold waxing.

START R-serie fluor blocks

Start -fluor bolcks (SFR92, SFR99 and BMR5) are concentrated fluor carbon based finishing/coating waxes used to add quickness and glide to the ski under humid conditions. Start fluor block usage recommendations:

Start SFR92 Block

Humidity over 75% and the weather is warming up fast, temperature -9°...-20°C

Start SFR 99 Block

Humidity over 75% and temperature +9°...-9°C

Startb BMR5 Molybdenumfluor block

Humidity over 75% and temperature +10°...-5°C, coarse and/or dirty snow.



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

Fluor block cold application:



Hot applying technique:



1. Apply thin layer of block glide waxed base



2. Fasten fluor block layer with wax iron through fibertex. Cover the bottom surface of the iron with fibertex so that iron itself does not touch the wax. Move iron evenly along the base. Fibertex prevents fluor gases to escape to air and evens the heat of the iron. The heat should be at the same level with what the glider below was worked with.



3. Let the base cool down, brush slightly with finishing brush and polish with fibertex.



Fluor block cold application

1. Apply fluor block thin layer to glider waxed base.
2. Rub the layer with nature cork.
Brush with finishing brush the structure of the base clean.
3. Polish with fibertex.
This top finishing suits on the fluor powders too.

Coating

Finalizing gliding base has a significant role for getting good glide. With gliders themselves it is not always possible to get optimal surface. This is why it is beneficial to coat the gliding surface with special waxes. With coatings it is possible to soften gliding surface, prevent moisture penetrating or harden the base for better wax durability. Check the purpose of different coating products. Note that coating is made after structuring the base.

Powdering can be made by hot or cold application.

Fluor powder hot applying:



1. Spread even layer of powder on to the pre-prepared base surface.



2. Melt the powder with the waxing iron until the wax forms into a smooth layer on the base surface.

Note! The melting point for PF-powders are 150°C and other powders 130°C



3. Let cool down and remove extra wax by brushing with nylon and finishing brush.



4. Brush the gliding base after the testing once more with finishing brush.

Cold applying for fluor powders

1. Spread the powder evenly on to the pre-prepared base
2. Adhere the powder evenly by rubbing with natural cork and brush with finishing brush.

Usage of Start Fluor Powders:

Start SF10 Fluor powder

Humidity over 75%. Universal powder for variable snow conditions. 10 g packing for 2 pair of skis.



Start SF10

Start SFR30 Fluor powder

Humidity over 75%. For new and fine snow +5°...-5°C. Use together with LF- and HF- gliders.



Start SFR30

Start SFR75

Humidity over 75%. For new and fine snow -5°...-15°C. Use together with LF- and HF- gliders.



Start SFR75

Start BM7

Humidity over 75%. For coarse-grained and dirty snow +10°...-3°C. Use together with BM-glidiers.



Start BM7

Start Polymerfluor Powders

Polymer fluor powders are used when the humidity is very high (over 85%). They work best as coating waxes for polymer fluor gliders. Can be used simultaneously with Golden Line-coatings. Polymer fluor powders require very high melting point (150C). Because of the high melting temperature, polymer fluor powders need to be spread on the base more heavily than other powders (see picture side 22). Otherwise some part of the base could be left without any powder causing risk of damage. After brushing in previous situation the base is splotchy instead of evenly base, and the glide is not ideal.

PF-Powders (PF550 and PF750)

Humidity over 75%. For old and variable snow conditions.

PF550 +5°...-3°C

PF750 -3°...-10°C

Usage simultaneously with PHF-glidiers.



Start PF550
Polymer powder

Start PF750
Polymer powder

Usage amounts of powders. On the left picture normal powder and on the right PF-powder:



Powder melted correctly looks smooth and even mat surface:



Start R-serie Fluor liquid waxes

SFR300 Sprint and BMR9 are modern fluor liquid gliders, which are easy to use and durable for sprint and junior usage.

SFR300 Fluor liquid glider

Humidity over 75%. For old and variable snow conditions +2°...-7°C. Can be used simultaneously with all gliders.

BMR9 Molybdenum/fluor liquid glider

Humidity over 75%. For coarse-grained and dirty snow +10°...+3°C. Can be used simultaneously with all gliders.



Start Fluor liquid waxes



Spread liquid glider on to the pre-prepared gliding base. Let dry well and remove extra wax carefully by brushing.

START Golden Line Fluor Polymer Liquids



Start SP Accelerator WET
Liquid

Start SP Accelerator HUMID
Liquid

Start SP Accelerator COLD
Liquid

Waxing with Golden Line Wet-liquid:



1. Apply the Accelerator liquid on to the gliding base. Note! Only 2-3 drops for entire base both sides of the groove.

2. Spread liquid to get very thin film on to the base e.g. with thumb or fibertex.



3. Remove extra liquid by brushing with natural hair brush and wipe finally with fibertex.



4. Polish the base with hard nylon brush and finishing brush. Wipe once again with fibertex in order to get very thin film on to the base. This phase is repeated until no liquid removes from the base.

Note! The waxing will not work if Accelerator Wet liquid layer is too thick!

9. Base Structuring



Start has developed this structuring tool in collaboration with the Finish Ski Association's Service team. Light hand made structuring has been used already from year 2000 in several World Champions, Olympic and World Cup races. In moisture and wet snow conditions these light structures, pressed on the gliding base, prevent the suction effect caused by water film between the ski base and snow. Structuring the base creates the possibility of getting air into the water film, which is beneficial for glide. By using the Start Structuring tool the ski bases can be a fine stone grinded with fine stone grind structure. The needed structure can be made due to the snow conditions each time and removed by some hot waxing actions. This expands the function range of the ski.

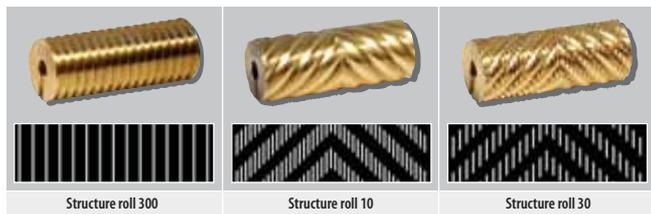
Assembling and changing the structure roll is very easy. Just screw out the cap on the side wall and pull off the roll. By fastening the roll be sure that the groove on the side of roll is placed rightly toward the plug. Looking at the structuring tool from the bottom side, the head of the "spruce" arrow should be placed towards the driving wheel. The rolls can be used as the way as well opposite way. Best result will be got from testing different combinations of the structures.

Attach the pre-prepared ski well to the waxing table or profile. If you want to use liquid waxes as coating, structure the gliding bases before liquide waxing.

Evaluate the snow condition very carefully and choose suitable roll to work with.

- Start structure roll nr.10 for old cold snow, when humidity is high (over 75%).
- Start structure roll nr. 30 for moisture/wet snow
- Start structure roll nr. 300 for wet snow and together with roll nr.30 for very wet snow.

1. Structuring is made by pushing the tool against the base running from tip to tail. Place Start structuring tool on the gliding base at the tip so that structure roll is in the back side and the driving wheel on the front side of the tool.
2. Lock the structuring roll by pushing the button on the wall and place the tool exactly to the place wanted. Acting like this you can always renew the structure. Before starting structuring check that the guiding rails are placing correctly on both sides the ski walls
3. Press Start Structuring tool properly against the base and push the tool towards the tail along the base.
4. After structuring, brush properly with nylon and finishing brush.



Structure roll 300

Structure roll 10

Structure roll 30



Kick waxing

The purpose of grip wax is to form a "sticky" surface between the ski and the snow for classical skiing. During the kick phase, snow crystals penetrate into the wax allowing the ski to grip, but then immediately let go once the glide phase begins. The snow crystals should not penetrate too deeply into the wax, or they will then not let go during the glide phase, slowing the ski down and causing the wax to ice. On the other hand, if the wax is too hard to allow for sufficient snow penetration, glide will be excellent, but the ski will not grip sufficiently. The right grip wax, therefore, is soft enough to allow snow crystal penetration during the kick phase, and this same wax releases the snow crystal immediately upon initiation of the glide phase.

The result is a ski that both grips and glides well. Hard grip waxes generally provide greater glide than klisters, even in mild conditions. If klisters are nevertheless required to provide sufficient grip, it is recommended that once the klisters have been allowed to cool outside, a thin layer of warm weather hard wax (yellow) be applied on top. The fluor based hard waxes are particularly suited for application on top of klisters layers, especially to prevent icing.

Grip waxes need to exhibit three important characteristics, which are often in conflict with each other:

1. **Stickiness** - to provide enough grip
2. **Hardness** - to allow for adequate glide
3. **Durability** - to adhere to the ski base

Within these characteristics, compromises often need to be made to come up with the best results. If, for example, extra durability is required, then one of the other characteristics, particularly glide, is often compromised. When durability is increased, the wax will adhere to the base for a longer time, but glide will be reduced. To increase durability, use base wax as the initial grip wax layer. Base wax is specially formulated to bind grip wax to the base of the ski.

The binding properties of base wax are much higher than those of surface grip waxes. Some will say that base wax slows glide, and that it comes "through" the surface waxes applied on top. However, base wax will not slow glide if it has been applied as a thin layer onto the ski base. Similarly, base wax will not come "through" the surface layers when they are carefully applied, as when both the ski and the wax have been cooled down to outside conditions. This allows the application of a number of thin wax layers which are separate from each other, resulting in minimal mixing between layers. Applying base wax also assures wax durability, which allows the application of a more slippery cover wax. The wax adheres to the base because of the durability of the base wax, grips well because of the added stickiness of the grip wax and glides well because of the slipperiness of the surface wax layers. As is probably evident, it is necessary to consider all of the factors when considering the choice of a correct grip wax. By paying attention to each of the variables a successful wax job can become routine.

Grip zone Preparation:

1. The camber of the ski needs to be matched to the skier who will be using them.
2. The binding attachment point should be determined under expert direction.
3. The grip zone should extend 40-60cm forward from the heel.
4. The marked grip zone should be abraded with 80-120 grit sandpaper.
5. The grip zone should be cleaned with wax remover, which should be allowed several minutes for evaporation.

Base waxing

There are two base waxes in the START line.

START Base Wax Extra

Extremely durable wax, used under very abrasive conditions.

Usage:

1. Spread it onto the base and then iron it in.
2. After allowing to cool for 10 to 15 minutes, smooth it out with a cork.
3. The final waxing should not be done until the base has been sufficiently cooled.



Basewax Extra

START Base wax

An easy to use base wax, used as a base for surface hard waxes.

Usage:

Spread it onto the base cold with cork or warm ironed.



Basewax

Cold applying technique

1. Spread good layer on the base to the grip zone
2. Smoothen with cork
3. Apply layer of wax appropriate for the conditions (tar waxes always outside)

Hot applying technique:



1. Spread layer of base wax on to the base.



2. Fasten the Base-wax with iron on to the base.

Let cool down about 10-15 min, smoothen with cork and apply single layer of wax appropriate for the conditions is then applied on top.

Start has three different full lines of kickwaxes in the product range, which can be used alone or parallel with other lines. These lines have suitable wax for every kind of snow conditions in both recreation and racing skiing.

START tar based kick waxes

- for fine-grained, new snow when the humidity is low.

New snow often results in changing track conditions. It is difficult to get grip, and the risk of icing is great. Tar waxes are exceptionally suitable for new snow conditions, since the tar adapts to temperature fluctuations, increasing the range of conditions in which a wax can be used, and decreasing the risk of icing. The wax mixtures are relatively soft, and invariably require a base wax to be used, usually the Start regular base wax. Tar waxes harder when they are cooled, and thus always need to be applied outside, so that they can be applied in thin, discrete layers, this will also aid in their effectiveness. In general, the tars are an easy to use

START synthetic kick waxes

- for old, coarse-grained snow.

Old coarse-grained snow is more abrasive than new snow, and thus requires waxes with a higher durability. On the other hand, obtaining grip is relatively easy, but requires the wax to be hard enough to maintain its gliding properties. Synthetic waxes are tougher and harder than the tar waxes, and are therefore more durable and improve gliding properties.

To ensure that the wax stays on the base, particularly for longer distances, it is recommended that base wax or base klistler be applied under these waxes. This base wax layer should be applied using an iron. The surface layers should always be applied outside.

START MFW molybdenum fluor kick waxes

- new and old snow, humidity over 55%

In humid conditions, snow surface is often dirty and tracks get shiny and the suction (liquid friction) decreases glide, which also makes it difficult to get a good grip. You can then select a softer grip wax than the temperature would require, but it absorbs dirt and moisture, which in turn lessens glide. A better solution is to use a molybdenum fluor grip wax, in which molybdenum's density has been used to prevent moisture from absorbing into the wax. On the other hand, fluor has been used to lower the wax's surface tension, which increases greatly both grip and glide properties.

MFW grip waxes' molybdenum brings density into the wax mixture, which repels effectively dirt and moisture. MFW series molybdenum fluor grip waxes are in basic nature softer than normal waxes and give a better grip in humid conditions. Particularly in humid conditions, START MFW molybdenum fluor grip waxes are easier to ski with than standard waxes.

START Black Magic kick waxes

The chemical composition of Start Black Magic and Black Magic Fluoro make them an entirely new type of finishing layer grip wax, which can make grip waxing easier. These waxes can be used as a thin surface layer on top of the wax in all conditions, or mixed with other waxes in changing conditions. Start Black Magic waxes are a powerful detergent to dirt accumulation and icing. At the same time increase the grip, glide and durability of the wax.

The Black Magic waxes perform well in a broader range of temperatures, which eases waxing, since the ski doesn't need to be re-waxed each time it's used, even though weather conditions might be significantly different.



BM -molybden fluor kick waxes



Kick waxing

1. Check that the grip zone has been properly prepared and cleaned.
2. Choose a base wax that is suitable for the conditions. Then, depending upon which base wax is chosen, either iron and cork it onto the ski according to the appropriate directions.
3. Apply one thin layer of grip wax appropriate for the day's conditions, and smooth it with a cork.
4. Cool the waxed ski outside, and then apply many thin layers of an appropriate wax for the day's conditions. Smooth each layer with a cork before applying any subsequent layers.
5. Test the function of the kick waxing. If needed apply softer wax to improve kick or cover with thin layer of START BLACK MAGIC grip wax.



Start Klisters

There are different types of klisters in Start wax collection

- Base klister
- Start klister
- Specialty klister
- Molybdenum/fluor klister

All start klister may be used alone or together with other klister as a kick wax.

Klister are used for grip wax when the track is extremely icy or wet. Klister are stickier than hard waxes. They are also more durable, adhering to the ski for a longer period of time in abrasive and icy conditions. In coarse, wet snow conditions, grip properties of klister are again better than hard waxes. Thus, in these conditions they are generally a better choice than hard waxes. If the track is dirty, it is necessary to apply a layer of either hard wax or a specialty finishing wax product to resist dirt and debris accumulating in the grip zone.

Note! Klister are much softer than hard waxes, and that loose snow can stick to klister, particularly if the skier stands in one spot with klister waxed skis on. This snow can be loosened from the ski by kicking it vigorously down onto the track surface.

Waxing with Klister

1. Clean the grip zone of the ski. When using klister, the waxed area of the grip zone is generally shorter than when using hard waxes. Abrade the grip zone with 80-150 grit sandpaper
2. Warm the klister in it's tube with a hot air gun. Warm klister is softer and easier to apply in an even layer. Squeeze klister onto the grip zone, on both sides of the groove.
3. Spread the klister with your thumb, hand, or with a cork.
4. Clean any excess klister from the groove and side walls of the ski.

Put the ski outside and allow it to cool. Assess the weather, and track conditions to determine the need for a covering layer. If one is needed, choose an appropriate wax to use for this covering layer. Apply to the cooled surface using the appropriate directions.

Note! Finished klister wax base should not be touched with your hands!!



GLIDE WAXING

Alternative I Base : BWLF low fluorinated base wax
 Glide : PHF200 polymer fluorinated glider
 Top : PF550 polymer fluor powder

Rain

Alternative II Base: BWLF low fluorinated base wax
 Glide: Golden Line Renowator Wet Glider
 Top: Goden Line Binder Wet – powder and Accelerator Wet –liquid

Base structuring: Start Structure Tool roll “Spruce” number 30 for skating and roll “Straight” number 300 combined with roll “Spruce” number 30 for classic skiing.

Start note: Distances longer than 10 km, use as base LF08 fluorinated Glider. For juniors HF20 can be used as glider and SFR99 instead of Powder.

KICK WAXING

Alternative I Base: Spread Base Klister with heat on the base.
 Kick : Spread Red and Universal Wide klister mix 20/80.
 Drop some (6-7) drops Tar klister on the mixing
 Rain.

Alternative II Base: Spread Base Klister with heat on the base.
 Kick: Spread Red and Universal Wide klister mix 20/80.

Start note: If kick is not good enough, add some Yellow MFW-klister to the mixing.

GLIDE WAXING

Alternative I Base: BWLF low fluorinated base wax
 Glide: PHF200 polymer fluorinated Glider
 Top: PF550 polymer fluor powder

Sleet storm

Alternative II Base: LF8 low fluorinated Glider
 Glide: HF20 high fluorinated Glider
 Top: SFR30 fluor powder

Base structuring For Skating Start Structure Tool roll “Spruce” number 10. For Classic roll “Straight” number 300 and on the top roll “Spruce” number 10.

Start note: For juniors SFR99 can be used instead of powder

KICK WAXING

Alternative I Base: Spread Base Klister with heat on the base
 Kick: Spread Special- and Universal Wide- klister mixed 20/80 Drop some (6-7) drops of Tar klister on to the mixing

Sleet storm

Alternative II Base: Spread Base Klister with heat on the base
 Kick : Spread Universal Wide -klister on the base. Add (6-7) drops of Tar Klister and mix.

Start note: If the kick is not good enough, some BM-Klister can be added in the mixing. If the waxing is too sticky, some Yellow Tar (+2°...+½°C) kick wax can be added on the top.

GLIDE WAXING

Alternative I
 Base: BWLF low fluorinated base wax
 Glide: PHF400 polymer fluorinated Glider
 Top: PF550 polymer fluor powder

Snowing
Alternative II
 Base: LF08 low fluorinated Glider
 Glide: HF20 high fluorinated Glider
 Top: SFR30 fluor powder

Base structuring: Start Structure Tool roll "Spruce" number 10, only for classic skiing.

Start note: For juniors and Sprints SFR99 or SF10 can be used instead of SFR30.

GLIDE WAXING

Alternative I
 Base: BWLF low fluorinated base wax
 Glide: PHF400 polymer fluorinated Glider
 Top: PF550 polymer fluor powder

Snowing
Alternative II
 Base: BWLF low fluorinated base wax
 Glide: HF40 high fluorinated Glider
 Top: SFR30 fluor powder

Base structuring: Hard track; Classic skiing Start Structure Tool roll "Spruce" number 10.

Start note: For juniors SFR99 or SF10 fluor powder can be used as top finishing

KICK WAXING

Alternative I
 Base: Base wax with heat on the base
 Kick: Spread thin layer Universal Wide -Klister on the base. Add Nolla Tar (+½°...-½°C) kick wax on the top Tar wax must be mixed with the klister.

Start note: If kick is too sticky or is collecting ice, couple layers of Nolla Tar (+½°...-½°C) kick wax can be added on the top. If still not grip enough, thin cover of BM non fluorinated wax can be added on the top.

KICK WAXING

Alternative I
 Base: Base wax with heat on the base
 Kick: Spread 3-4 layers of Synthetic Violet (+2°...-2°C) on the base
 Top: Very thin layer of Violet MFW (+2°...-1°C) kick wax

Snowing
Alternative II
 Base: Base wax with heat on the base
 Kick: Spread some layers of Synthetic Violet (+2°...-2°C) on the base. Add good layer of Yellow MWF (+3°...+1°C). Use iron to mix. Let cool down and smooth carefully with cork.

Start note: If grip is too sticky or is collecting ice, couple layers of Nolla Tar (+½°...-½°C) kick wax can be added on the top. If the track is icy, some drops of Tar- klister can be added and mixed rubbing to the waxing.

GLIDE WAXING

Alternative I Base: BWLF low fluorinated base wax
 Glide: PHF600 polymer fluorinated Glider
 Top: PF550 polymer fluor powder

Snowing

Alternative II Base: LF08 low fluorinated Glider
 Glide: HF40 high fluorinated Glider
 Top: SFR30 fluor powder

Alternative III Base: BWLF low fluorinated base wax
 Glide: HF40 high fluorinated Glider
 Top: SF10 fluor powder

Base structuring: Hard track; Classic skiing Start Structure Tool roll "Spruce" number 10.

Start note: For juniors SFR99 can be used as top finishing

KICK WAXING

Alternative I Base: Base wax with heat on the base
 Kick: Spread 2-3 layers of synthetic Violet (+2°...-2°C) on the base.
 Top: 1-3 layer of Tar Red (0°...-3°C) kick wax

Snowing

Alternative II Base: Base wax with heat on the base
 Kick: Spread 2-3 layers of synthetic Violet (+2°...-2°C) on the base
 Top: 1-3 layer of Synthetic Red (-1°...-3°C) kick wax. Then 1-2 layer of Tar Red (0°...-3°C) kick wax.

Start note: If the grip is not good enough, add a very thin layer of fluorinated BM kickwax will help.

GLIDE WAXING

Alternative I Base: BWLF low fluorinated base wax
 Glide: HF60 high fluorinated Glider
 Top: SFR30 fluor powder

Start note: For juniors SFR99 can be used as top finishing.

KICK WAXING

Alternative I Base: Base wax with heat on the base
 Kick: Spread 2-3 layers of Synthetic Blue (-2°...-6°C) on the base
 Top: 2 layers of Tar Red (0°...-3°C) kick wax.

Hard track

Alternative II Base: Base wax with heat on the base
 Kick: Spread 2-3 layers of Synthetic Blue (-2°...-6°C) on the base
 Top: Cover with very thin layer of BM-coating (+2°...-30°C) outside

Start note: Synthetic Blue and Red MFW can be mixed and heated with iron. Let cool without any finishing.

GLIDE WAXING

Alternative I Base: LF08 low fluorinated wax
 Glide: HF80 high fluorinated Glider
 Top: SFR75 fluor powder

Alternative II Base: BWLF low fluorinated base wax
 Glide: HF80 high fluorinated Glider
 Top: SF 10 fluor powder

Start note: For juniors SFR99 block can be used instead of powder.

KICK WAXING

Alternative I Base: Base wax mixed with Synthetic Red (-1°...-3°C) with heat on the base
 Kick: Spread some good layers of Synthetic Blue (-2°...-6°C) on the Base. On the top lay some good layers of Blue MFW (-3°...-10°C). Heat the mixing with iron and let cool down. Smooth outside with cork.

Start note: Spread one layer of Tar Blue (-2°...-6°C) kick wax on the top to prevent friction.

GLIDE WAXING

Alternative I Base: LF08-low fluorinated Glider
 Glide: HF80 high fluorinated Glider
 Top: SFR92-fluor block ironed threw fibertex

Start note: If the snow is very dry, break the gliding surface slightly by using Brass or steel brush beginning from tip to tail. Smooth polishing with nylon powder or finishing brush.

KICK WAXING

Alternative I Base: Base wax mixed with Synthetic Blue (-2°...-6°C) heated with iron on the base
 Kick: Spread good layer of Synthetic Blue (-2°...-6°C) on the Base. Cover with some good layers of Blue MFW (-3°...-10°C). Iron the waxing, let cool down and smooth outside with cork.

GLIDE WAXING

Alternative I Base: LF08 low fluorinated Glider
 Glide: HF80 high fluorinated Glider
 Top: SFR92 fluor block

Start note: If the snow is very dry, break the gliding surface slightly with a Brass or steel brush beginning from tip to tail. Smooth polishing with nylon powder or finishing brush. If temperature is warming use as Top SFR99 fluor block.

KICK WAXING

Alternative I Base: Base wax mixed with Synthetic Blue (-2°...-6°C). Heated with iron on the base
 Kick: Spread 3 – 4 layers of Synthetic Green (-5°...-10°C) on the Base.
 Top: Cover with 2 thin layer of Tar Green (-7°...-12°C) outside on the top.

GLIDE WAXING

Alternative I

Base: LF08 low fluorinated Glider
 Glide: Golden Line Wet Renovator Glider
 Top: Golden Line Wet Accelerator-liquid + Golden Line Wet Binder powder+ Golden Line Wet Accelerator – liquid.

Base structuring:

Start Structure Tool roll “Straight” number 300 and on the top roll “Spruce” number 30.

Start note:

HF20 Glider and SF10 –fluor powder can be used instead of Golden Line. For Juniors SFR300 Sprint liquid can be used as Top instead of Golden Line.

KICK WAXING

Alternative I

Base: Base Klister with heat on the base
 Kick: Red - and Universal - Wide klister mixed 50/50 Add some Yellow MFW (+10°...+1°C) klister and rub in to the waxing.

Start note:

Increasing the share of Red –klister the grip will be more aggressive.

GLIDE WAXING

Alternative I

Base: BWLF low fluorinated base wax
 Glide: PHF200 polymer fluor – glider
 Top: PF550 polymer fluor - powder

Raining

Alternative II

Base: LF08 low fluorinated Glider
 Glide: Golden Line Wet Renovator Glider
 Top: Golden Line Wet Binder powder+ Golden Line Wet Accelerator – liquid.

Base structuring:

Start Structure Tool roll “Straight” number 300, and on the top roll “Spruce” number 30.

Start note:

Instead of using Golden Line, HF 20 can be used as a Glider And SF10 fluor powder as top. For Juniors HF20 can be used as Glider and SFR300 Sprint liquid as top.

KICK WAXING

Alternative I

Base: Base Klister heated with iron
 Glide: Spread Red - klister ja Universal - Wide klister mixed 50/50. Add some Yellow MFW (+10°...+1°C) klister in the waxing.

Start note:

Increasing the share of Red –klister the grip will be more aggressive.

GLIDE WAXING

Alternative I
 Base: BWLF low fluorinated base wax
 Glide: PHF400 polymer fluorinated - Glider
 Top: PF550 polymer fluorinated - powder

Alternative II
 Base: LF08 low fluorinated Glider
 Glide: Golden Line Humid Renovator - Glider
 Top: Goden Line Humid Binder - powder and Goden Line Humid Accelerator - liquid

Base structuring: Start Structure Tool roll "Straight" number 300 and roll "Spruce" number 10 on the top for classic skiing. For skating roll "Spruce" number 10.

Start note: Instead of using Golden Line, HF20 Glider and SF10 fluor Powder as top can be used. For Juniors HF20 as Glider and SFR300 Sprint liquid as top.

KICK WAXING

Alternative I
 Base: Spread Base Klister with heat on the base
 Kick: Spread thin layer of Universal Wide-klister, smooth well. Drop some (3-5) drops of Tar klister on the Universal layer. Rub and smooth well, the Universal klister will rise on the top.
 Top: Grip will be covered outside with Tar Nolla (+½°...-½°C) kick wax.

Hard Track

Alternative II
 Base: Extra base wax heated with iron on the base
 Kick: Spread good layer of Synthetic Violet (+2°...-2°C) kick wax. On the top good layer of Yellow MFW (+3°...+1°C) kick wax. Heat the kick waxing with iron, let cool outside and smooth with cork.

Start note: If the kick is not good enough, add some drops of Tar klister on the top. If the track is glazing, the kick wax will not need to be added on the klister.

GLIDE WAXING

Alternative I
 Base: LF08 low fluorinated Glider
 Glide: Golden Line Humid Renovator - glider
 Top: Goden Line Humid Binder - powder and Goden Line Humid Accelerator - liquid

Fine snow

Alternative II
 Base: BWLF low fluorinated base wax
 Glide: PHF400 polymer fluorinated - Glider
 Top: PF550 polymer fluorinated - powder

Alternative III
 Base: LF08 low fluorinated Glider
 Glide: HF40 and BM4 mixed 70/30
 Top: SF10 - fluoripowder

Base structuring: Start Structure Tool roll "Spruce" number 10

Start note: BMR9 molybdenum fluor -, SFR300 Sprint-liquid or SFR99 fluor block can be used on the top of BM and HF - gliders in Sprints and short distances.

KICK WAXING

Alternative I
 Base: Extra Base wax heated with iron
 Kick: Spread good layer of Synthetic Violet (+2°...-2°C) kick wax. On the top good layer of Yellow MFW (+3°...+1°C) kick wax heated with iron. Let cool down and smooth with cork outside.

Start note: If more grip needed, add 1 - 2 layer of BM fluor coating (+2°...-30°C).

GLIDE WAXING

Alternative I
 Base: LF08 low fluorinated Glider
 Glide: HF40 and BM4 mixed 70/30
 Top: SF10 – fluor powder

Alternative II
 Base: BWLF low fluorinated base wax
 Glide: PHF600 polymer fluorinated - Glider
 Top: PF550 polymer fluor – powder

Base structuring: Start Structure tool roll “Spruce” number 10

Start note: In high humid snow conditions Golden Line Humid-liquid can be used on the top of the powder. In Sprints and short distances SFR300 Sprint- Liquid or SFR99 fluor block can be used instead of powder.

KICK WAXING

Alternative I
 Base: Base Wax with heat on the base.
 Kick: 2 – 3 layers of Synthetic Violet (+2°...-2°C) kick wax.
 Top: 1 – 3 layers of Synthetic Red (-1°...- 3°C) kick wax.

Soft track

Alternative II
 Base: Base wax heated with iron on the base
 Kick: Spread good layer of Synthetic Violet (+2°...-2°C) kick wax and add Some layers of Violet MFW (+2°...-1°C) kick wax. Heat with iron, let cool down and smooth with cork.

Start note: BM (+2°...-30°C) -covering can be added on the top of kick waxing.

GLIDE WAXING

Alternative I
 Base: LF08 low fluorinated Glider
 Glide: HF60 high fluorinated Glider
 Top: S F10 fluor powder and on the top SFR99 fluor block

Alternative II
 Base: BWLF low fluorinated base wax
 Glide: PHF600 polymer fluorinated - Glider
 Top: PF750 polymer fluorinated – powder

Base structuring: Start Structure Tool roll “Spruce” number 10 for classic skiing.

Start note: In very humid snow conditions Golden Line Cold-liquid is recommended. On the top of powder. In Sprints and short distances SFR300 Sprint- Liquid or SFR99 fluor block can be used instead of powder.

KICK WAXING

Alternative I
 Base: Base wax with heat on the base.
 Kick: Blue MFW (-3°...-10°C) kick wax 3 – 4 layers.

Soft Track

Alternative II
 Base: Base wax with heat on the base.
 Kick: Good layer of Synthetic Blue (-2°...- 6°C) kick wax.
 Top: Good layer of fluorinated BM – coating. Iron the waxing, let cool and smooth with cork.

Start note: 3-5 layers of Synthetic Red (-1°...- 3°C) kick wax is worth of trying.

GLIDE WAXING

Alternative I Base: HFG high fluorinated graphite
 Glide: PHF800 polymer fluorinated - Glider
 Top: PF750 polymer fluorinated – powder

Alternative II Base: LF08 low fluorinated Glider
 Glide: Golden Line Cold Renovator - Glider
 Top: Goden Line Cold Binder - powder and Accelerator Cold –liquid

Alternative III Base: LF08 low fluorinated Glider
 Glide: HF80 high fluorinated Glider
 Top: SFR99 - fluor block with rubbing on the base, add on the top SF10-fluor powder heated with iron

Base structuring: Start Structure tool roll “Spruce” number 10 for classic

Start note: For Sprints and short distances SFR99 fluor block as top.

KICK WAXING

Alternative I Base: Base wax with heat on the base.
 Kick: Synthetic Blue (-2°...-6°C) kick wax 2 –3 layers
 Top: Blue MFW (-3°...-10°C) kick wax one layer

Start note: As kick it is worth to try 3 – 5 layers of Synthetic Blue (-2°...-6°C) alone.

GLIDE WAXING

Alternative I Base: HFG high fluorinated graphite
 Glide: HF80 high fluorinated Glider
 Top: SFR75 fluor powder

Alternative II Base: HFG high fluorinated graphite
 Glide: LF08 low fluorinated Glider
 Top: SF10 fluor powder

Start note: For Sprints and short distances, on the top of HF – Gliders, it is possible to use SFR92 fluor block

KICK WAXING

Alternative I Base: Base wax and Synthetic Red (-1°...-3°C) heated with iron
 Kick: Good layer of Synthetic Blue (-2°...-6°C)
 Top: Blue MFW (-3°...-10°C) good layer on the top heated with iron.

Start note: As kick waxing it is worth to try 3 – 5 layers of Synthetic Blue (-2°...-6°C) alone.

GLIDE WAXING

Alternative I Base: HFG high fluorinated graphite
 Glide: HF80 high fluorinated Glider
 Top: SFR92 fluor block

Alternative II Base: SG6 Glider
 Glide: LF08 low fluorinated Glider
 Top: SF10 fluor powder

Start note: HF80 high fluorinated-Glider can be tried as Glider alone.

KICK WAXING

Alternative I Base: Base wax and Synthetic Blue (-2°...-6°C) heated with iron
 Kick: 3 – 4 layers of Synthetic Green (-5°...-10°C)

Start note: If snow has been very cold long time, the Synthetic black -10°...-30°C Can be tried as a thin layer applied outside and cold. For kick wax it is worth to try 3 – 5 layers of Synthetic Blue (-2°...-6°C) alone.

GLIDE WAXING

Alternative I

Base: LF08 low fluorinated Glider
 Glide: Golden Line Wet Renovator - Glider
 Top: Golden Line Wet Binder - powder and Accelerator Wet -liquid

Dirty Snow

Alternative II

Base: SG8 Glider
 Glide: BM2 molybdenum fluor -Glider
 Top: BM7 fluor -powder

Base structuring: Start Structure Tool roll "Straight" number 300 and roll "Spruce" number 30 on the top.

Start note: For Sprints and short distances BMR9 molybdenum fluor -liquid can be used instead of powder.

GLIDE WAXING

Alternative I

Base: LF08 low fluorinated Glider
 Glide: Golden Line Wet Renovator - Glider
 Top: Golden Line Wet Binder - powder and Accelerator Wet -liquid

Dirty Snow

Alternative II

Base: SG8 Glider
 Glide: BM2 molybdenum fluor -Glider
 Top: BM7 fluor -powder

Base structuring: Start Structure Tool roll "Straight" number 300, on the top roll "Spruce" number 30.

Start note: For Sprints and short distances BMR9 molybdenum fluor -liquid can be used instead of powder.

KICK WAXING

Alternative I

Base: Base Klister with heat on the base
 Kick: Red Klister and Universal - Wide Klister mixed 50/50. Add some Yellow MFW (+10°...+1°C) Klister to the waxing

Dirty Snow

Alternative II

Base: Base Klister heated with iron
 Kick: Red - and Silver - Klister mixed 60/40
 Top: Some drops of BM - Klister will be added and rubbed in to the waxing.

Start note: Red Klister can be added to get kick more aggressive.

KICK WAXING

Alternative I

Base: Base Klister with heat on the base.
 Kick: Yellow MFW - Klister (+10°...+1°C) and Universal - Wide Klister mixed 50/50

Dirty Snow

Alternative II

Base: Base Klister with heat on the base.
 Kick: Special - Klister (+2°...-2°C) and Universal Wide - Klister mixed 50/50
 Top: Add some drops of BM - Klister and rub on the waxing

Start note: Yellow MFW - Klister can be added to get kick more aggressive.

GLIDE WAXING

Alternative I
 Base: LF08 low fluorinated Glider
 Glide: Golden Line Humid Renovator - Glider
 Top: Golden Line Humid Binder - powder and Accelerator Humid - Liquid

Dirty Snow

Alternative II
 Base: LF08 low fluorinated Glider
 Glide: BM2 molybdenum fluor -Glider
 Top: BM7 fluor -powder

Base structuring: Start Structure Tool roll "Straight" number 300, on the top roll "Spruce" number 10.

Start note: For Sprints and short distances BMR9 molybdenum fluor -liquid or BMR5 fluor block as Top.

KICK WAXING

Alternative I
 Base: Base Klister with heat on the base.
 Kick: Red MFW -Klister (+1°...-5°C) and Special- Klister (+2°...-2°C) mixed 50/50

Dirty Snow

Alternative II
 Base: Base Klister with heat on the base.
 Kick: Universal Wide -Klister and BM -Klister mixed 50/50.

Start note: Red MFW -Klister can be added to get kick more aggressive.

GLIDE WAXING

Alternative I
 Base: LF08 low fluorinated Glider
 Glide: Golden Line Humid Renovator - Glider
 Top: Golden Line Humid Binder - powder ja Accelerator Humid -liquid

Alternative II
 Base: LF08 low fluorinated Glider
 Glide: BM4 and HF40 mixed 30/70
 Top: SF10 fluor powder. On the top BMR9 molybdenum fluor -liquid

Base structuring: Start Structure Tool roll "Spruce" number 10

Start note: In Sprints and shorter distances BMR9 molybdenum fluor -liquid or BMR5 molybdenum fluor block can be used as top finishing.

KICK WAXING

Alternative I
 Base: Extra Base wax with heat on the base.
 Kick: Good layer of Synthetic Blue (-1°...-6°C) and Red MFW (0°...-3°C) heated with iron, cooled and smoothed outside.

Dirty Snow

Alternative II
 Base: Extra Base wax with heat on the base.
 Kick: 3 - 4 layers of Synthetic Red (-1°...-3°C)
 Top: 1 - 2 layers of BM - cover (+2°...-30°C)

Start note: If the kick is not aggressive enough, Violet Klister can be added on the top to get better kick.

GLIDE WAXING

Alternative I

Base: HFG high fluorinated graphite
 Glide: Golden Line Cold Renovator - Glider
 Top: Golden Line Cold Binder - powder and Accelerator Cold –liquid

Alternative II

Base: LF08 low fluorinated Glider
 Glide: BM6 molybdenum fluor Glider
 Top: SF10 fluor –powder. On the top BMR5 molybdenum fluor block

Base structuring: Start Structure Tool roll “Spruce” number 10

Start note: In Sprints and shorter distances BMR5 molybdenum fluor block can be used as a top finishing. For longer distances SG9 hardener powder can be added to increase durability of the powder waxing.

KICK WAXING

Alternative I

Base: Extra Base wax with heat on to the base.
 Kick: Good layer of Synthetic Blue (-2°...-6°C). On the top good layer of Blue MFW (-3°...-10°C). The waxing heated with iron, cooled and smoothed with cork.

Start note: As kick waxing it is worth to try mixing of the Base wax and Synthetic Blue heated with iron .

GLIDE WAXING

Alternative I

Base: BM 6 Molybdenum fluor Glider
 Glide: HF80 high fluorinated Glider

Dirty snow

Alternative II

Base: LF08 low fluorinated Glider
 Glide: BM6 molybdenum fluor Glider
 Top: BMR5 molybdenum fluor block heated with iron threw fibertex

Base structuring: Start Structure Tool roll “Spruce” number 10 for classic skiing.

Start note: In Sprints and shorter distances BMR5 molybdenum fluor block can be used as a top finishing. For longer distances SG9 hardener powder can be added to increase durability of the powder waxing.

KICK WAXING

Alternative I

Base: Extra Base wax with heat on the base
 Kick: Spread good layer of Synthetic Blue (-2°...-6°C), on the top good layer of Blue MFW (-3°...-10°C). Waxing heated with iron, cooled and smoothed with cork.

Start note: As kick waxing it is worth to try mixing of the Base wax and Synthetic Blue heated with iron .

ICY SNOW -0°...-2°C

GLIDE WAXING

Alternative I

Base: LF08 low fluorinated Glider
 Glide: BM4 molybdenum fluorinated and HF40 high fluorinated Gliders mixed 50/50.
 Top: SF10 and BM7 fluor powders mixed 50/50

Dirty Snow

Alternative II

Base: LF08 low fluorinated Glider
 Glide: BM4 molybdenum fluor Glider
 Top: BM7 molybdenum fluor powder and on the top BMR9 molybdenum fluor –liquid.

Base structuring: Start Structure Tool roll “Spruce” number 10.

Start note: In Sprints and shorter distances BMR9 molybdenum fluor –liquid or BMR5 molybdenum fluor block can be used as top finishing.

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KICK WAXING

Alternative I

Base: Base Klister with heat on the base
 Kick: Red MFW – Klister (+1°...-5°C) and Violet-Klister (0°...-5°C) mixed.
 Top: As Top thin layer of BM – coating (+2°...-30°C) outside.

Littered tarck

Alternative II

Base: Base Klister with heat on the base
 Glide: Violet Klister (0°...-5°C) added some drops of Universal Wide klister.

Start note: If kick is too sticky, thin layer of BM-coating can be added.

ICY SNOW -2°...-8°C

GLIDE WAXING

Alternative I

Base: LF08 low fluorinated Glider
 Glide: BM6 molybdenum fluor Glider
 Top: SF10 and BM7 fluor powders mixed 80/20.

Base structuring:

Start Structure Tool roll “Spruce” number 10 for classic skiing.

Start note:

In Sprints and shorter distances BMR5 molybdenum fluor block can be used as a top finishing. For longer distances SG9 hardener powder can be added to encrease durability of the powder waxing.

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KICK WAXING

Alternative I

Base: Extra Base wax heated with iron
 Kick: Blue Klister (-4°...-15°C) mixed with some drops of Violet-Klister (0°...-5°C).

Start note:

If kick is too sticky, thin layer of BM-coating can be added.

