

SWIX

This manual is not directed towards World Cup racers, but rather to frequent skiers keen to keep in shape.



Waxing profile T770 with legs T70-1



Fibertex T265



Travelling profile T70



Waxing iron T7422



Combi cork T11



Bronze Brush T162



Fiberglass 85 m T151



Plexiscrape T823



Mix-brush T105



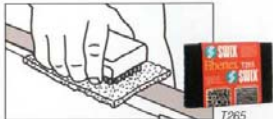
Fiberglass 50 m T150

NEW SKATING SKIS/CLASSIC SKIS GLIDEZONES

1. Base conditioning

The preparation of new skis starts with Fibertex treatment (T265). 8-10 passes in both directions along the base. Polyethylene hairs and micro-burrs are removed, and the base surface is "opened" for better glide wax absorption.

NOTE: Only in the glide zones.



T265

2. Hot wax Cleaning

Cleaning by hot-waxing and scraping using a soft wax, removes dirt and saturates the base. Recommended are warm temperature waxes such as CH10, CH8 or BP88. The temperature of the waxing iron should not exceed 120°C.

Note: No glide wax in the kick zone.



CH10

3. Ironing

Start at the tip moving the iron towards the tail in a continuous movement to prevent overheating of the base.



T7422

4. Groove scraping

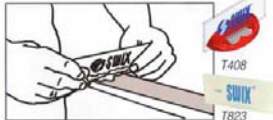
While the wax is still warm, remove all wax out of the groove and on the side-edges with the Scraper (T87 or T88). Do this before scraping the base to prevent scratches if the groove-scraper unintentionally happens to jump out of the groove.



T87

5. Base scraping

Scrape off the wax with a sharp Plexi-Scraper (T823) while the wax is still warm (wax-cleaning method). Do not press too hard. Keeping the scraper sharp means light strokes can be used to remove the excess wax without harming the base. T408 keeps the plexiscraper sharp.



T823

6. Brushing

Use a Bronze-Brush (T162) tip to tail 10-20 times.

Note: No brushing in the kick zone.



T162

7. Finally, use a soft wax, such as CH8, to saturate the base to prevent dry bases and to give optimal glide. Repeat the process two times from Step 2 to 6, but let the skis cool to room temperature (15 minutes), before Step 4, 5 - Scraping.

Skis having a new stone grind should be treated also as from step 1 to 7.



Founder of Swix, Martin Matsbo (1911-2002) testing kick wax in 1946.

Swix takes pride in its more than 50 year history as one of the strongest and most recognized brand names in skiing.

Followed by pioneering research work in 1946, the Astra Pharmaceutical Company introduced revolutionary ski waxes based upon fully synthetic materials. The new 3-colored system was a breakthrough for all skiers, and de-mystified and simplified waxing. The new Swix system of waxing replaced unscientific and often secret concoctions of tar, beeswax, melted bicycle tire inner tubes and phonograph records, to mention just a few of the obscure ingredients. Before long, Swix waxes were discovered the world over, and recreational skiers and racers alike realized a new level of enjoyment and success.

Since 1966 Swix has been located in Lillehammer, Norway where all wax production takes place. This is an ideal area for testing and developing new products having close access to cross country trails and alpine areas.

Traditionally famous for its XC-waxes, today Swix is also the number one alpine ski wax company. We are present at all big events on the World Cup for cross-country, alpine and snowboard. The most important markets are Japan, USA and the Nordic Countries.

Swix is owned by the industrial group FERD.

Follow the guidelines found in this manual and we can promise better and more enjoyable skiing.

SWIX SPORT WAXING GUIDE

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SWIX SPORT WAXING GUIDE

GLIDE WAX FOR THE DAY

Three glide waxes will cover most snow conditions: CH8 (or LF8) for normal winter conditions from +1°C to -4°C (34°F to 25°F), CH10 (or LF10) for wet snow (free water), and CH7 (or LF7) for cold snow.

1. Base conditioning

Before the application of actual wax for the day, make 4 or 5 passes with the Bronze Brush (T162 or T158) to re-new and clean the base, ensuring maximum wax absorption.

2. Hot wax application

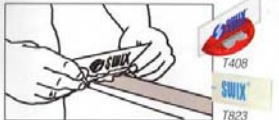
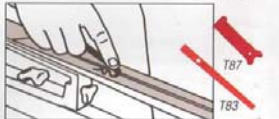
Set the Waxing iron to the recommended temperature shown on the wax package. The waxes should easily melt. Let the wax drip onto base, holding the iron approx. 5 cm above the ski.

Remember: No glide waxes in the kick zone of Classic skis!



3. Ironing

Go from tip to tail, constantly moving the iron to prevent over-heating the base. Let the skis cool for 5 to 10 minutes.

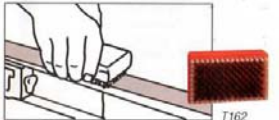


4. Groove scraping

Remove all wax out of the groove with the Groove Scraper (T87 or T88).

5. Base scraping

Scrape the base with a sharp Plexi-Scraper (T823). Do not press too hard. T408 keeps the plexiscraper sharp.

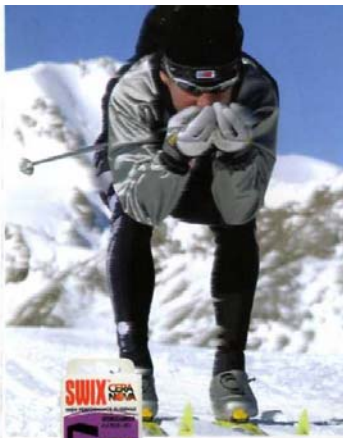


6. Brushing

Brush the base with a Bronze Brush (T162) from tip to tail approx. 20 times. This will remove wax from the base structure (grinding pattern) to give better glide.

Note: Do not brush in the kick zone of Classic skis.

SWIX SPORT WAXING GUIDE



Swix glide waxes

CH AND LF CATEGORIES

Three glide waxes are sufficient to obtain good glide on most snow conditions: CH10 (or LF10) for very wet snow from +10°C to 0°C (50°F to 32°F), CH8 (or LF8) in normal winter-conditions from +1°C to -4°C (34°F to 25°F), and CH7 (or LF7) for colder than -2°C (28°F).

Note: All Swix temperatures are air temperatures in the shade.



CH7 Violet
Cold snow. -2°C (28°F) and colder.
Recommended iron setting: 135°C (275°F).



LF7 Violet
Fluorocarbon Glide wax.
-2°C and colder (28°F and colder). For cold conditions and high humidity.
Recommended iron setting: 135°C (275°F).



CH8 Red
For normal winter conditions. +1°C to -4°C (34°F to 25°F). Also for saturating the bases of new skis. Will always improve the glide, even beyond its ideal range.
Recommend iron setting: 120°C (250°F).



LF8 Red
Fluorocarbon Glide wax.
+1°C to -4°C (34°F to 25°F). For normal winter conditions and high air humidity. The fluorocarbon additive definitely improves glide around the freezing point and moist snow.
Recommended iron setting: 120°C (250°F).

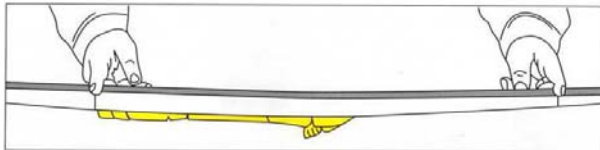


CH10 Yellow
For very wet snow (free water in the snow). +10°C to 0°C (50°F to 32°F). Often used to saturate the bases of new skis due to its softness and penetration potential.
Recommended iron setting: 110°C (230°F).



LF10 Yellow
Fluorocarbon Glide wax.
+10°C to 0°C (50°F to 32°F). For very wet snow. The fluorocarbon additive will improve glide and increase dirt resistance.
Recommended iron setting: 110°C (230°F).

TREATMENT OF THE KICK ZONE



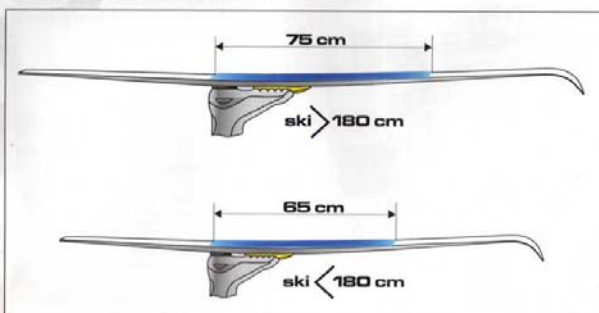
The stiffness of the skis is very important for obtaining the combination of good glide and good kick. Take care when selecting skis.

For optimal function of the kick waxes, accurate matching of ski stiffness to skier weight is necessary. At the moment of kick, having full weight on one ski, the ski should have sufficient contact with the snow. However, skis that are too soft will reduce the gliding properties and cause unnecessary wear of the kick wax. Reputable ski shops will have good methods and instruments to match ski stiffness to body weight.

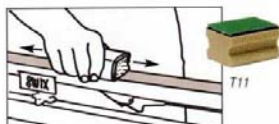
The waxing of the kick zone should take place after finishing the glide zones. The length of the kick zone should be in the range of 75 cm for both klister and hard wax. Generally the kick zone is measured from the heel of the binding and forward.

Don't be afraid to extend the kick zone forward if the skis are slipping. A longer kick zone has less influence on glide than what you might imagine, and having good kick will make the ski tour much more enjoyable.

KICK ZONE (KLISTER=HARD WAX)



APPLICATION OF HARDWAXES



1. Sanding
The kick zone should first be sanded with #100 grit sandpaper approx. 55 cm (about 2 feet). Sand the zone back and forth parallel to the length of the ski. The new Swix Combi Waxing Cork (T11) with sandpaper on one side is an ideal tool.



2. Base wax
At temperatures below 0°C (32°F) a relatively hard wax, such as V30 Blue, is recommended as a base wax. Base Binder VG35 is applied as the first layer when the snow becomes coarser.

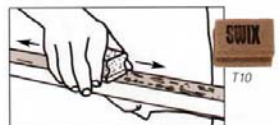


3. Ironing base wax
The first layer of wax should be ironed into the base. The heat will improve the bond between the wax and base giving longer wear. Iron setting should be 100°C (212°F).



4. Hard wax application
The actual kick wax should be applied 4-5 thin layers, smoothing each layer with the cork. Above freezing 2 layers are sufficient.

Note: Leave 2 cm (1 inch) at each end of the kick zone. With corking, the wax is expanded into these areas.



5. Corking
Corking in between each layer of wax.

Swix kick waxes

The well-known V-line has been improved guaranteeing an even better combination of kick and glide.

The V-line is made both for racing and ski touring. The high quality is due to high-grade raw materials and proven formulas that are continually adjusted to improve effectiveness.

Along with the two temperature ranges shown on the label are two snow-type symbols. One for new and falling snow, and one for older, fine-grained snow.



Waxing for new snow and fine-grained snow.

On new snow a harder (colder) wax is applied than on older snow. The reason for this is that new snow crystals are sharper and have better penetration into the wax giving better kick. Older snow particles are more rounded and a softer wax is needed to get sufficient kick.

Therefore Swix has introduced a system showing two different temperature intervals on all waxes, one for the new snow and one for the older snow. This makes it easier to find the right wax. Do not be concerned about applying a wax that is one step 'warmer' than what the temperature is indicating if the snow has become coarser. Normally the snow transforms from new to fine-grained after a couple of days, although this process might happen faster close to 0°C (32°F).

Note: All temperatures given on Swix waxes are air temperatures measured in the shade.



Swix VR Hard Waxes (Krystal line)

- Wider ideal range
- Better glide
- Reduced risk of icing-up

The VR waxes are fluorinated and formulated for top racing, but also have proved interesting for recreational and sport skiers because of their excellent properties, particularly around 0°C (32°F).

These hard waxes are characterized by a high degree of flexibility. Each VR-wax has two specified temperature ranges, one for falling and new fallen snow, characterized by sharp snow crystals with relatively strong penetration capacity, and one range for older snow, when the crystals are more rounded and have less penetration power.

NOTE: All Swix temperatures are air temperatures in the shade.



- New fallen snow
-7°C to -20°C (19°F to -4°F)
- Transformed fine-grained snow
-10°C to -30°C (14°F to -22°F)

VR30 LIGHT BLUE

Designed for cold to extremely cold conditions



- New fallen snow
-2°C to -8°C (28°F to 18°F)
- Transformed fine-grained snow
-4°C to -12°C (25°F to 10°F)

VR40 BLUE

For normal, subfreezing temperatures.



- New fallen snow
0°C to -2°C (32°F to 28°F)
- Transformed fine-grained snow
-2°C to -8°C (28°F to 18°F)

VR45 FLEXI

Light violet. A flexible wax for temperatures around freezing and colder.



- New fallen snow
+1°C to 0°C (34°F to 32°F)
- Transformed fine-grained snow
0°C to -4°C (32°F to 25°F)

VR50 VIOLET

Designed for moist to dry snow around freezing 0°C (32°F). When used below freezing, the snow must be transformed.



- New fallen snow
+2°C to 0°C (36°F to 32°F)
- Transformed fine-grained snow
0°C to -3°C (32°F to 27°F)

VR55 SILVER/VIOLET

For moist snow around freezing and for older, more coarse snow just below freezing. Perfect balance between kick and glide.



- New fallen snow
+2°C to 0°C (36°F to 32°F)
- Transformed fine-grained snow
+1°C to -2°C (34°F to 28°F)

VR60 SILVER

Designed for moist snow. When used below freezing high humidity and transformed snow is required.



- New fallen snow
+1°C to +3°C (34°F to 38°F)
- Transformed fine-grained snow
0°C to +2°C (32°F to 36°F)

VR70 KLISTERWAX

Red. For wet and moist new snow. Works also on wet transformed snow down to 0°C (32°F). Apply thicker if very wet.



- New fallen snow
+2°C to +5°C (36°F to 41°F)

VR75 KLISTERWAX SOFT

Yellow. For wet snow, glazy tracks. Must be applied evenly. To be used in maintained tracks only.



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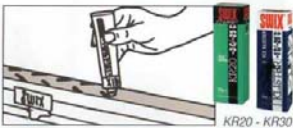
APPLICATION OF KLISTERS



Klisters are generally used when the snow has gone through one or more cycles of thawing and refreezing, or when very wet.

1. Sanding

Sand the kick zone with #100 sandpaper (or T11 Combi-Cork).



2. Base Klisters

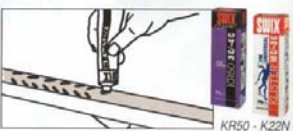
KR20 Green or KR30 Blue are normally chosen as the first layer as a base. Apply in a thin layer, just covering the sanding. For lower temperatures, high tear and wear conditions, or long distances use KR20.



3. Ironing Base Klisters

The first layer of klisters should be carefully warmed into the base with an iron to improve the contact between the klisters and base.

Let the skis cool to room temperature.



4. Klisters application

Select and apply the klisters of the day. One layer normally is enough. The product is applied in a 'fish-bone' like pattern, or as a thin string on each side of the groove.



5. Smoothing the Klisters

Distribute evenly with the scraper, found in the package, or with the hand as preferred by most racing servicemen.

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SWIX SPORT WAXING GUIDE

Swix recreation klisters



- Frozen corn snow

K10 Blue Ice Klisters

-1°C to -20°C (30°F to -4°F)
For coarse granular cold snow and hard tracks. Also used as a base-klisters. Can be covered by hard wax V45 or V40 when the klisters conditions are not clearly defined such as partly coarse-grained and partly fine-grained.



- Wet corn snow
- Old snow

K21 Silver Universal klisters

+3°C to -5°C (37°F to 23°F)
For coarse to fine grained snow and changing conditions around freezing. To be used on somewhat colder conditions than K22N VM Universal Klisters.



- Frozen corn (old) snow
- Wet corn snow

K22N VM Universal Klisters

+10°C to -3°C (50°F to 27°F)
For coarse-grained to fine-grained snow, with an ideal range somewhat above freezing.



- Wet corn snow

K30 Red Wet Snow Klisters

+1°C to +20°C (34°F to 68°F)
For very wet granular snow, spring snow conditions.



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SWIX SPORT WAXING GUIDE

Swix KR Klister (Krystal Line)

A complete line of klisters, ranging from very cold and coarse snow to extreme wet conditions. Designed for top-level performance, but useful for recreational touring skiing as well.



Frozen corn (old) snow

KR20 BASE KLISTER

Green. -3°C to -25°C (27°F to -13°F)
High wear resistance and adhesion. To be used as a first layer as a binder for other klisters or hard waxes in very abrasive conditions. Can also be used alone for icy conditions at very cold temperatures. As a first layer klister, it should be heated into the base.



Frozen corn (old) snow

Wet corn snow

KR30 ICE KLISTER

Blue. 0°C to -15°C (32°F to 5°F)
For frozen, icy tracks in cold conditions. Can also be used as a base klister for wet-snow klisters to improve wear.



Frozen corn (old) snow

Wet corn snow

KR40 VIOLET/BLUE COARSE SNOW KLISTER

Violet/blue. +2°C to -7°C (36°F to 19°F)
A tough klister for old granular, coarse snow only. Great base klister with VR50 and VR45 on top when the snow is coarse at -2°C / -5°C (28°F / 23°F).



- Fine grained snow
- Old snow
- Frozen corn
- Wet corn snow

KR50 FLEXI KLISTER

Violet. +3°C to -4°C (37°F to 25°F)
Very adaptable, working on both sides of freezing. Ideally it is best when conditions are changeable and mixed fine-grained snow.



Wet corn snow

KR60 VARIO KLISTER

Red. +5°C to 0°C (41°F to 32°F)
Created for medium wet snow. "Vario" is best on the warm side of freezing. New softer formula for more kick.



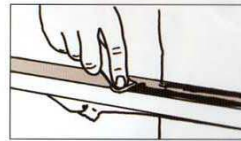
Wet corn snow

KR70 AQUA KLISTER

Orange. +12°C to +2°C (52°F to 36°F)
Wet snow klister. Used when the snow has high water content such as slush, and the air temperature is well above freezing. New softer formula for extra grip when very wet.

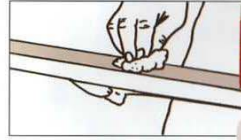
CLEANING OF SKIS

Cleaning is recommended after each ski trip.



1. Scraping

Remove as much wax as possible using a scraper (T87).



2. Final Cleaning

The remainder is taken away with Wax Remover and Fiberlene (T0150). If the wax is difficult to remove, use gray Fiberlene (T265) saturated in Base Cleaner.

Base Cleaners and accessories for removal of hardwaxes and klisters.

Waxes and klisters consist of tough, rubbery, water-resistant, inert, and stable materials. This means that they are also difficult to remove from the ski base. Solvents are necessary for thorough base cleaning.

Swix Base Cleaner and Swix Citrus Solvent are both formulated to minimize health and fire hazards.

Traditional solvents like trichlorethylene or methylenechloride were frequently used as solvents for oils, fats and also waxes. These highly aromatic solvents, however, are considered health hazards and should be avoided. They are not found in the Swix wax removers.



Swix Base Cleaner (I64)

The active ingredient in the cleaner is a low aromatic hydrocarbon with good solvent capacity.



Citrus Solvent (I74)

500 ml Citrus Solvent is a 100% citrus-based product, which also is a strong solvent.



Fiberlene
Cleaning towel
50 m.