



Winter
World Championships

PRAGELATO - SESTRIERE
2024

Information regarding the use of Fluorine wax at the 2024 World Triathlon Winter World Championships Pragelato-Sestriere

In order to prevent any misunderstandings, we want to give you reliable and precise information regarding the situation on fluorine wax.

World Triathlon considers the ban on fluorine waxes to be an important and correct step in making all snow sports more sustainable. At the same time, over the past few months and weeks, concerns have not diminished that the fluorine ban will jeopardize or even make the fair running of the various snow sports competitions, especially on slopes that are open to the public, impossible, with the current testing options. After consultation with experts on that matter, the World Triathlon Technical Committee has decided on the following regulations to be in place for the 2024 Winter World Championship events:

Due to the fact that the cross country tracks are open to the public, and transfer of fluorine onto skis is still debated, it seems that an enforceable ban with thorough, fair testing, cannot be guaranteed at this time. Therefore the FIS non-fluorine rules for the 2023/24 season are not yet adopted.

However, due to their negative impact, World Triathlon encourages all participants to voluntarily avoid fluorine products!

Background knowledge about fluorine wax

Fluorowax, also known as fluorinated ski waxes, are a type of wax that is applied to the treads of skis to improve gliding properties. These waxes contain fluorine compounds that reduce friction between ski and snow, resulting in better performance, especially in humid and warm conditions.

However, there are various reasons why the use of fluorine waxes is increasingly being banned:

Environmental impact: Fluorine compounds can be harmful to the environment. They do not break down in the environment and can accumulate in water and soil, causing long-term ecological problems.

Health Risks: The production, application and removal of fluorowaxes can pose health risks to athletes, technicians and others in the vicinity. Inhaling fumes and particles containing fluorine compounds can be harmful.

Fairness in sport: Because fluorowaxes are expensive, they can lead to inequality in sport as not all participants can afford these waxes. This can lead to an unequal competitive situation.

Due to these concerns, various ski associations and ski race organizers have begun to limit or ban the use of fluorowaxes in order to protect both the environment and the health of participants and to ensure fairer competition.

Alternatives?

For athletes and skiers looking for alternatives to fluorinated waxes, there are several options:

Nanowaxes: Nanowaxes are based on nanoparticles that attach to the surface of the ski and improve the gliding properties. Compared to fluorine waxes, nanowaxes are more environmentally friendly and have fewer negative health effects.

Cerax Nanowax from Cerax, a German ski wax manufacturer. Cerax Nanowax is based on nanoparticles that attach to the surface of the ski and improve the gliding properties.

Swix Ecowax from Swix, a Swedish ski wax manufacturer. Swix Ecowax is an organic wax made from natural raw materials such as vegetable oils or beeswax.

Polar-Wax from Polar-Wax, an Austrian manufacturer of ski waxes. Polar-Wax offers a range of alternative fluoro waxes including nanowaxes, biowaxes and graphene waxes.

Hydrocarbon Waxes: These paraffin-based waxes are a traditional and more environmentally friendly alternative. They are less efficient in extreme weather conditions compared to fluoro waxes, but offer excellent performance under normal conditions.

Biodegradable Waxes: There are eco-friendly waxes that are biodegradable and do not contain harmful chemicals. These waxes are a good choice for the environmentally conscious.

Novel Chemical Compositions: Some wax manufacturers are developing new, more advanced wax compositions that have similar properties to fluorinated waxes without the associated environmental and health risks.

Waxless technologies: When it comes to cross-country skis, there are "waxless" skis that are equipped with structured treads and thus offer good grip and glide without the use of wax.