

Glide wax like tarring a plastic boat

June 14 2010

Both recreational skiers and elite ski racers can forget about wax and scrape their skis with a steel tool instead. "Putting wax on modern skis is just as wrong as tarring a plastic boat," says Leonid Kuzmin. His research prompted a big debate a couple of years ago. Now his research has delved even deeper into the subject, and he is now defending his Doctoral Thesis at Mid Sweden University.

In his dissertation one may also find some notice regarding the unhealthful consequences of ski wax.

A few years ago when Leonid Kuzmin presented his research findings about ski wax, a heated debate broke out between two sides - those advocating glide wax and those championing steel scrapers.

Now Kuzmin has pursued his research further and can definitively put to rest the myth about glide wax.

"It's a myth that you need to use wax on [skis](#). Modern ski bases provide better glide. It's enough to treat the surface of the ski mechanically, using a steel scraper, for example, to achieve good glide. This also minimizes your cost as well as the time you spend."

The gliding surface of modern cross-country skis is made of ultra-high molecular weight polyethylene (UHMWPE). It is a material that offers extremely good wear characteristics, a low coefficient of friction, and the capacity to self-lubricate.

"That's why it makes no sense to destroy a fantastic product with a less suitable material like glide wax. Those who claim otherwise are practicing voodoo and not science."

Leonid Kuzmin shows how it is enough to perform a few swipes with a scraper, a simple tool, to achieve good glide in the ski trail. It's both simpler and cheaper than waxing your skis.

The conclusion that we should forget about glide wax goes for recreational skiers and elite racers. Kuzmin had his wife Antonina Ordina compete on unwaxed skis as early as the 1995 World Championships, and she won a bronze medal.

Even though Kuzmin's research indicates that we can throw out our ski wax, we should take care not to allow it to be burned in ordinary municipal combustion facilities. Glide wax contains fluorocarbons. Burning it releases gases that are ten times as toxic as the chemical weapon phosgene.

"If you work with ski waxes, you make the choice yourself, but everyone around you who is affected knows nothing."

Provided by Swedish Research Council

Citation: Glide wax like tarring a plastic boat (2010, June 14) retrieved 25 April 2024 from <https://phys.org/news/2010-06-glide-wax-tarring-plastic-boat.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--