



**Autrans – VERCOR Nature Reserve
1 January 2007**

Wax mixtures

Introduction: waxes in blocks are mixtures of 5 to 7 natural, synthetic raw materials or monomers, polymers and colouring substances. Their dose and “preparation” procedure are the subject of special attention. Increase or decrease in proportion allows shifting the “notional” response spectrum and adding qualities of performance and polyvalence in the temperature scale for different types of snow. Remember that the most difficult types of snow are falling fresh snow or new snow fallen less than 24 hours ago. Their texture, humidity rate and stability prevent us from using standard scales. So, most of the time we are obliged to mix two different temperature scales in order to meet the objectives of such types of snow.

Identification of wax lines:

Temperature scales prescribed for wax application make reference to air temperature. Related letters or acronyms make reference to “fluorine” content. Thus, CH standing for Hydrocarbon is produced without fluorine, LF stands for Low Fluorocarbon, HF for High Fluorocarbon and Cera contains 100% of fluorine. Though waxes are often associated to the skier’s category and level, we have already used CH and LF waxes in World cups. The choice depends simply on the air humidity. For dry weather CH and LF are preferable, for humid and very humid weather with humidity rate around 40% it’s better to use HF and CeraMax.

Identification of types of snow:



T1 : Falling fresh snow with thin or round grains from 3mm to 3cm in diameter, humidity rate varying from 55% to 98%. In the same category we find needles and artificial grains.



T2 : Compact or well packed snow that remains homogeneous though slightly transformed. In this category we find grains with flat faces that glitter once a skier has passed. It's important to distinguish between lustrous and mat side of snow. The first one shines under the sun. Humidity rate in this category varies from 60% to 75%.



T3 : Big very humid grains with flat faces and no branches, they emit water under pressure. Humidity rate is between 70% and 98%. This type of snow is often called corn snow or ice grains.

Measuring techniques:













Applying **1/3 of wax N°1** means smoothing the product economically, wax in blocks is applied briefly on the iron base and once softened it is rubbed into the ski base from tip to tail. Do not iron.

Applying **the rest 2/3 of wax N°2** adds up to trickling wax down in a traditional way, that is applying wax in blocks on the iron base and while moving your iron slowly from tip to tail let it stream down on the ski base on both sides of the groove. Then smooth it with iron in to-and-fro or circular movements and finish by passing your iron straightline.

Applying **wax n°1 and wax n°2 in 50%-50% proportion** goes down to trickling two waxes one after another in a traditional way given above. Iron in to-and-fro or circular movements and finish by passing your iron straightline.

As for **powder waxes**, dust two products one after another if you have enough practice. Or else, mix the necessary amount in a tube. We strongly recommend you a Medium-Low mix of CeraMax for falling fresh snow around -6°C (as for Transjurassienne 2004...).

Application of PRX waxes:

	V-LOW	LOW	MEDIUM	HIGH
	-25°/-12°C	-15°/-5°C	-8°/+2°C	0°/+10°C
	  	  	  	  
CERA Max Powder			1/2	1/2
Liquid		Ref 100105	Ref 100105	Ref 100205
PFXG8 GM	Dirty and mixed (artificial and fresh) snow			
PFX10 HF		1/3	2/3	2/3
PFX 6 LF	1/3	1/2	1/2	1/2
PFX 1 CH	1/3	1/2	1/3	1/3

This “application table” which we propose is not steadfast, it is a result of our work during the last three years. This table is not universal, as it is hard to find exactly the same types of snow. It makes reference as well to our personal vocabulary used to describe different types of snow.

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