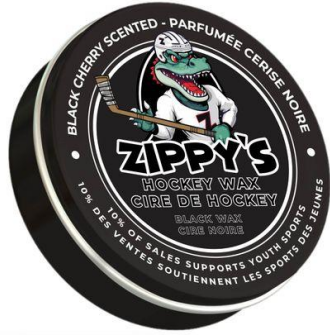


Which Wax is the Best for Your Hockey Tape?

By: Remi

Wonders.....

- I wonder which hockey wax works **BEST** for dangling a puck?



Other Wonders I Have About this Experiment

- I wonder what wax will hold the puck on the test device at the highest angle.
- I wonder if different wax scents affect how well the wax performs.

Background Knowledge and Research

I know a lot about hockey wax and tape based on how I use it.

We have been learning about friction. The hockey wax is supposed to increase the friction between the stick and the puck to help keep the puck on the stick (help the player "dangle").

Sources: google hockey store and wiki

Waxes

Wax Type	Ingredients	Claims
Howie's Tacky Wax	Extra-tacky microcrystalline blend adds superior grip	<p>Ice & snow repellent formula prevents moisture buildup on taped blades, ensuring a consistent puck feel in all conditions.</p> <p>Soft, durable texture extends tape life while offering a naturally tacky feel that enhances shot accuracy and finesse.</p>
Zippy's Bubblegum	Not Available	This wax will not only protect your tape from ice and snow build-up but also provide a sticky residue for better puck control.
Mr. Zogg's Strawberry	Not Available	a tacky wax coating over the tape to not only prolong the tape's lifespan, but give players a better handle on the puck when stickhandling, shooting, and passing
Mr. Zogg's Grape	Not Available	a tacky wax coating over the tape to not only prolong the tape's lifespan, but give players a better handle on the puck when stickhandling, shooting, and passing
Zippy's Black Cherry	Not Available	This wax will not only protect your tape from ice and snow build-up but also provide a sticky residue for better puck control.

Hypothesis:

I think tacky wax is going to hold the puck in place at the highest angle and Zippy's is going to be the one that lets the puck slide at the lowest angle.

Materials

- Hockey wax (5 types)
- Hockey tape
- Plywood sheet
- Pucks
- Protractor
- Ratchet straps
- Scale

Procedure

1. Build the apparatus to test the wax
 - a. Find a plywood sheet wide enough to set 6 pucks across a line
 - b. Set up the plywood against a solid surface
 - c. Set up the ratchet straps to pull the top of the plywood up
 - d. Position the protractor so I can record the angle
2. Apply tape to the test surface
3. Record the weight of each wax before applying
4. Apply 5 swipes of each type of wax to the designated test area leaving one area with no wax for the control
5. Record the weight of each wax after applying
6. Weigh the pucks to make sure they are all the same weight
7. Number the pucks so each test uses the same puck on the same wax
8. Set one puck on each test location
9. Start raising the edge of the apparatus. Raise it until the first puck slides down
10. Record what degree each puck starts to slide at
11. Repeat the experiment (steps 2-8) 5 times
12. Analyze the results

Controlled Variables

- Apparatus (plywood, tape, etc.)
- Puck weight

Uncontrolled Variables

- Exact amount of wax applied
(different types might spread a bit differently)
- Pucks might accumulate wax

Manipulated Variable

- The type of wax applied to the tape

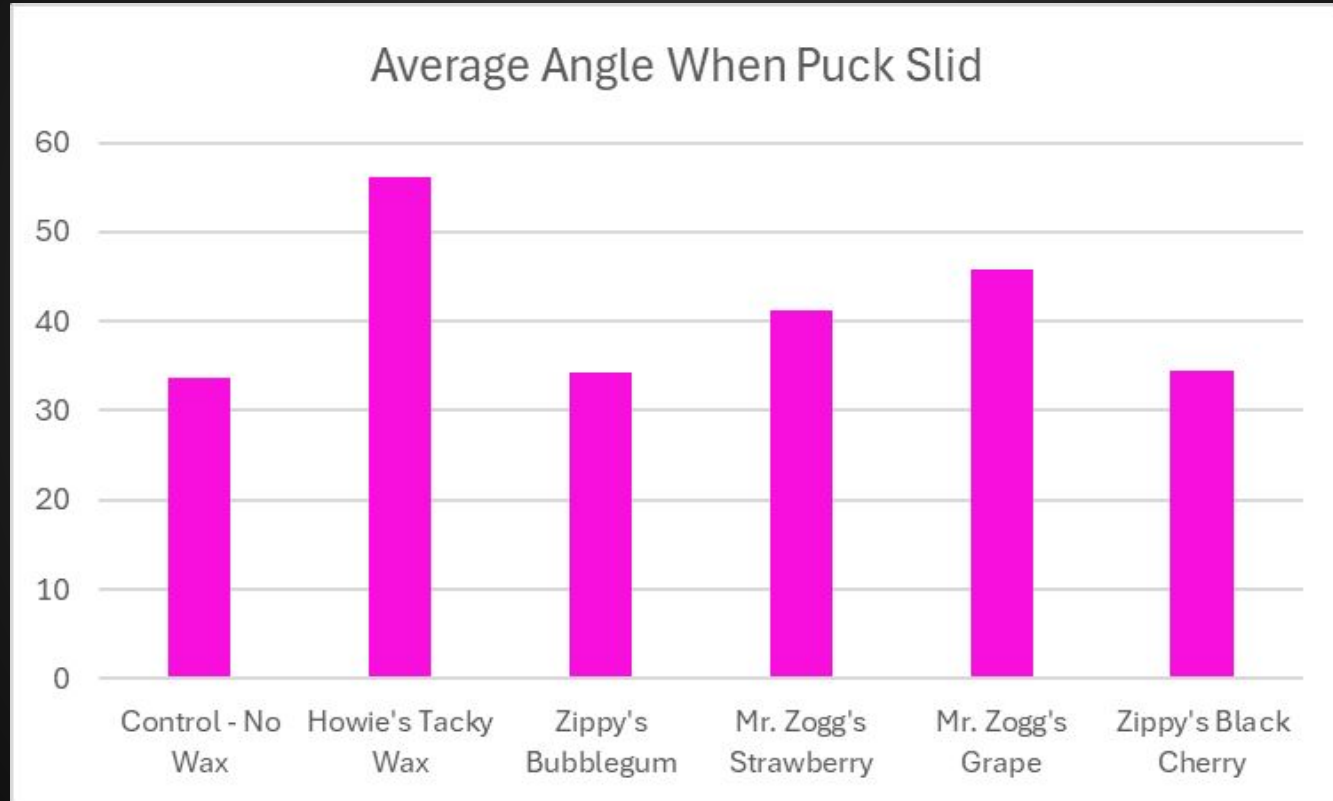
Observations - Wax Weights

Puck #	Wax Type	Weight Before	Weight After	Difference
		Grams	Grams	Grams
1	Control - No Wax	-	-	-
2	Howie's Tacky Wax	76	73	3
3	Zippy's Bubblegum	55	54	1
4	Mr. Zogg's Strawberry	77	76	1
5	Mr. Zogg's Grape	76	74	2
6	Zippy's Black Cherry	69	67	2

Observations - Angle of Slide

Puck #	Wax Type	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Average
		Degrees	Degrees	Degrees	Degrees	Degrees	Degrees
1	Control - No Wax	31	36	33	34	34	33.6
2	Howie's Tacky Wax	59	55	61	53	53	56.2
3	Zippy's Bubblegum	34	36	33	34	34	34.2
4	Mr. Zogg's Strawberry	42	41	40	41	42	41.2
5	Mr. Zogg's Grape	43	46	47	46	47	45.8
6	Zippy's Black Cherry	34	36	34	34	34	34.4

Results



Sources of Error

- *Wax might have built up a bit on the pucks*
- *The wax might have worn off the tape during the tests*
- *The plywood might not be perfectly flat*
- *Different amount of wax was applied in 5 swipes*

Conclusions

Howie's Tacky Wax was the stickiest and therefore is the best to "dangle" the puck.

My hypothesis was correct, the Tacky Wax held the puck at the highest angle and the Zippy's waxes both allowed the puck to slide at the lowest angle.

It was interesting to notice that both Zippy's wax flavours were close to the same result. But, the results for the different Mr. Zogg's flavours were quite different.

Applications

The results of my experiment can help a hockey player to figure out which type of wax will help them to dangle the puck on their stick the best (hold the puck on the tape).

Further Study

All of the waxes also claim to repel snow and ice. I could test to see if Howie's tacky wax is also the best at this or if another wax is better.