

REVIEWS ON THE MANUSCRIPT [8]

Reviewer 1:

The structure of this paper is non-existent. It is full of irrelevant stuff and extremely messy. I feel that the author is not serious and I would definitely not recommend it.

Reviewer 2:

Comments:

The article is written more like a story than a real scientific paper, but it works well in this particular solution. However, the structure should be changed (see the Organization and Presentation section). There are some crucial lacks in the solution (See below).

The strongest and the weakest aspect of the paper:

The strongest aspect of the paper is the detailed analysis of the problem, and the experimental part (the velocity dependence, experimental analysis of different pressing masses, etc.)

The weakest aspect of the paper is simplicity of the proposed theoretical approach. Assumptions made for the problem, nonetheless well described, are way too big.

The discussion of the angle of peeling is too short and non-scientific. The conclusion: "there is no such thing as "force necessary to remove" is doubtful and should be explained and justified.

Organization and Presentation:

The paper is not easy to read, because no structure of the text is proposed. The text should be divided into abstract, few introductory chapters (introduction, theoretical analysis, assumptions, etc.), main content (theoretical results, experimental results etc.), and conclusions at last.

Style:

The article is very interesting and thus understandable. However, some of the comments should be removed (like "neither anyone I've asked"). The reviewer likes and enjoys the style, sense of humor, and attitude of the author, however the author should use a bit more formal way of writing. (e.g.: "I've -I have", "pretty close" - how close (quantitative analysis suggested) . Equations inside the text are unclear and should be formatted and re-written.

Additional Questions:

- Why the thickness of the glue should follow Gaussian distribution?
- Why do you think there is no necessary condition to remove the tape (minimal angle and minimal force?). Did you always remove your tape in experiments, in each of the studied conditions?
- What is a slip-stick problem?

References:

The number of used references is poor (no scientific references are mentioned.)

Recommendation:

- Change the structure. Divide the paper into chapters.
- Discuss the influence of the angle of peeling.
- The conclusion: “there is no such thing as “force necessary to remove” is doubtful and should be explained.
- Write two or three sentences describing the sources of the errors in the experiments.
- Please consider revising any parts of the text that are unspecific and do not clarify of what results are obtained and what conclusions are drawn.

Summary:

The manuscript is recommended for publication after some essential changes of structure. To improve the understanding of the theoretical details and your solution, write the limitations and description of the used notation in equations.

Reviewer 3:

This contribution is written in a funny, rather colloquial style, recording the thought process of a student who was actually designing and running the experiment. The especially funny part was about the tape sticking to everywhere but where we wanted it to.

However, I believe this contribution is quite out of focus, looking mainly at the "pressure applied" to the tape before peeling it off. This introduces some variety in the tape properties.

Still, the author describes quite a few nice experiments, showing constant velocity (time) and velocity (applied pressure) dependences, and graphs for his experiments of force (velocity), velocity (temperature) and velocity (angle) relationships.

Here are a few comments.

It's funny that the author can't for his dear life find out what "horizontal surface" would mean, when a few sentences later he **tilts** his horizontal surface and lets the weight peel the tape off at different angles (-:

The author really concentrates too much on the "pressure-sensitive" tape. This should just mean you need to press the tape, and **then** it sticks. Nothing more. He discusses this for 2 pages, approximating the glue amounts by Gaussians and doing weird things with a ton of measurements, even after seeing the tape does not peel off any faster when it's pressed to death in Figure 2 :-)

Nevertheless, the experiments afterwards are interesting. Still, I don't agree with his "there is no such thing as force necessary to remove" claim, which means the tape peels off at "any force". This just can't be true. A tape **can** hold something.

His last conclusion (and a social experiment) is on how people peel tapes off (the optimal angle), seeing that most people do it intuitively right. This is a fun conclusion, with a completely bogus evolutionary explanation :-)

After reading this paper, we have learned that the author is "afraid of the dark and irresponsible", but I have to observe that he can quite have a lot of fun working on the IYPT problems.

Small typos:

A thousand articles missing in action.

Van der Vaal's force ... van der Waals force

it's name ... its name

on the fig ... in fig (several times)

are should be linear ... should be linear

non-Newtonian liquid ... non-Newtonian fluid

is square parabola ... is a parabola

Editorial commentary and request

We agree to the prevailing opinion of reviewers that an overhaul of the manuscript should be undertaken to fix the narrative and structure.

We acknowledge, however, that the manuscript features many interesting measurements. This potential has been outlined by the Reviewers 2 and 3. We believe that the serious and justified concerns of the Reviewer 1 may be resolved upon the thorough revision of the manuscript.

Style: We resolve that some stylistic features are inappropriate for the publication.

We request that the text is revised to remove nonsense and reduce the amount of sarcasm to a reasonable minimum.

Please never address the readers in second person (Figure 2) and comment on their experiences (e.g. page 3.)

Structure: We recommend implementing rigorously the suggestions of all three reviewers.

“But since no one likes when a thing and it’s name doesn’t correspond each other”: justify or reference rigorously *why* the tape was initially considered pressure sensitive. The name *pressure sensitive* was assumed or claimed without any justification. In the earlier considerations, it was indeed a *name* and under no means a *feature* of the studied film.

“Charles Darwin”: Provide an accurate reference (page number, edition notice) as for this citation.

Figures 4, 8, 9: Consider adding a scale bar.

gr: g?

Fig.x: consider placing a blank spacing everywhere: fig. x.

Figure 10: Both figures show the same data set. It is not necessary to re-plot the same data twice only to show that a good parabolic fit transfers into a good linear fit when force is replaced by squared force. Consider not plotting duplicate data.

Non-Newtonian liquid (pages 4, 5) is a class of various liquids with strikingly different properties. Moreover, even the viscosity of Newtonian liquids is also strongly temperature dependent (page 5.) What class of non-Newtonian fluids is considered on page 4? Consider more accurate wording.

"there is no such thing as force necessary to remove": address the concerns of the Reviewers with an utmost attention and either justify your conclusion fully, or revise it.

After thorough consideration and evaluation of the reviews and of the manuscript, we take the editorial decision to request revision.