

Durock POM Linear Switch Review

-ThereminGoat, 12/20/2020

Damn, it has actually still managed to have been quite a busy week off even without having word on a review or scorecard for the website at all. I always had pictured taking an extra week off would have netted me some sort of leisure time with frozen poolside, mid-December pina colodas, though it appears my fantasies were a slightly bit misplaced. In case you were wondering what exactly I was up to with this week off instead of furiously continuing to break in the sets of switches on my writing boards, you can check out the VOD for Keebcast Episode #23, which is a mechanical keyboard stream with Alexotos, Chasedotgg, and Space Cables where they interview people from around the community on a week-to-week basis. While I'm not necessarily saying *my* interview/stream turned out the best, it did happen to run longer than any other guest that they had had up to that point so maybe there was something special about it. Either that, or the verbosity I normally bring to the written reviews does also translate well to non-written media.

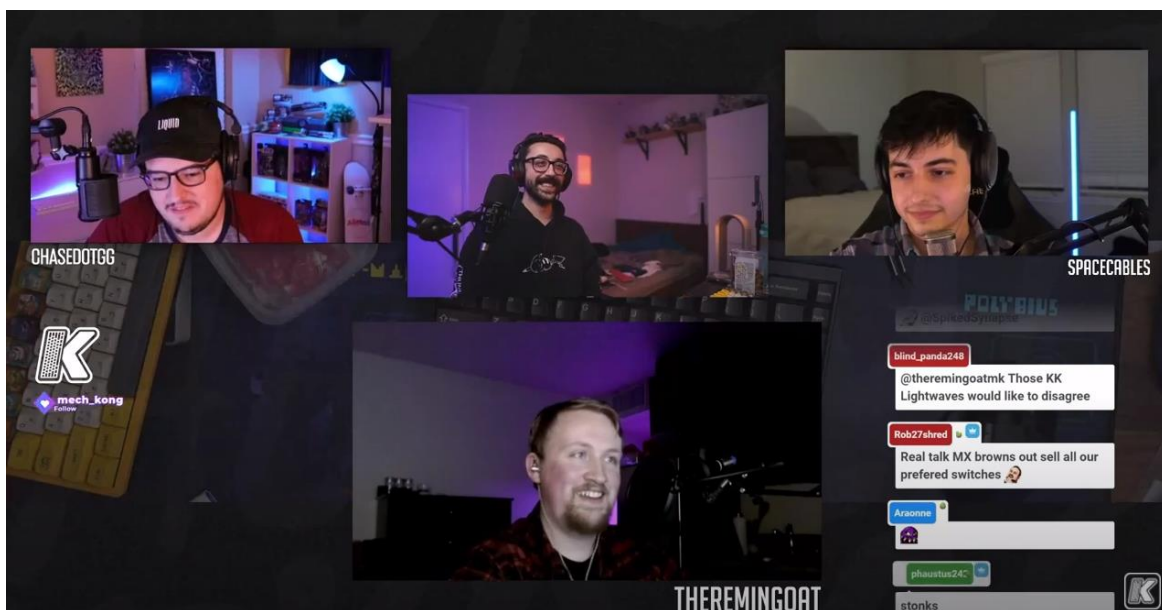


Figure 1: Please do ignore my V-Tuber getup, I am actually a goat in real life. I swear.

Another partial reason for my intentional delay in putting out written content is simply due to a lack of arrival of interesting switches lately. Well, switches that I am *able* to discuss, that is. With the holiday season literally next week here in the United States, USPS, DHL, and all the other delivery services who currently have packages for me are completely backed up meaning that I wasn't quite able to get stuff in time to discuss on here. On the contrary though, the set of rather secretive switches that this review is on I can now finally discuss after some time of holding onto them due to their appearance on Taeha's stream a week or two ago. With me finally being able to discuss a couple of these interesting prototypes, as well as having more showing up in the mail sometime (hopefully) soon, I am also contemplating doing a short compilation of my prototypes in my collection since those often appear to be something that people like to ask about a lot. In the coming weeks as well, I will most definitely be attempting to make some more improvements to the website as a whole, including an additional spot to honor my patrons on my Patreon who are going above and beyond showing their support past just reading these reviews. If you'd like to be honored on this addendum coming up in the next few weeks, please head on over to my Patreon, linked in the image below and feel free to show whatever kind of support you'd like to.

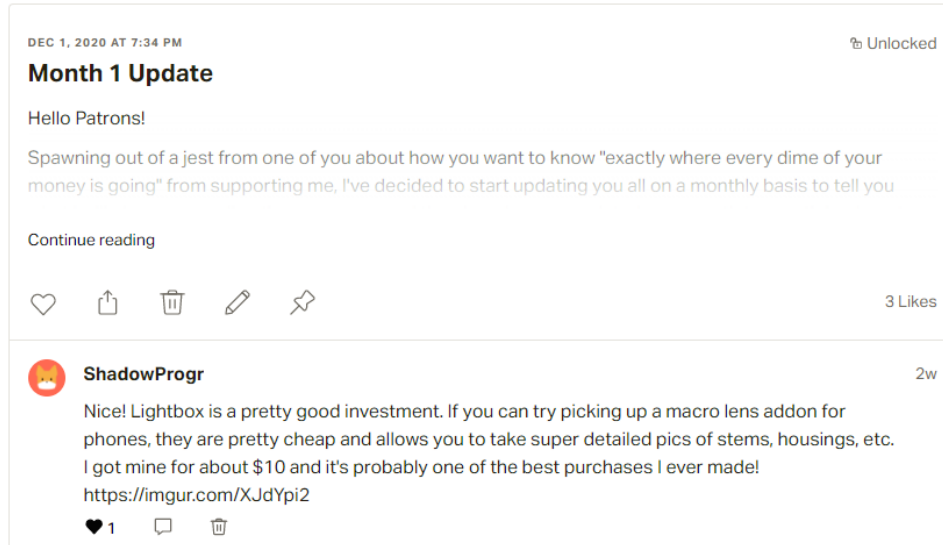


Figure 2: Patrons even get a special update on how exactly I spend their money and can suggest improvements to the website other than suggesting a review of MX Browns!

Switch Background

In the natural exploration path of customizability when it comes to switches, manufacturers inevitably tend to come around to attempting new or interesting materials in their switch releases. Since not everyone can be like Cherry and have discovered the absolute perfect Nylon composition for their switch housings to use until the heat death of the universe, we've seen the introduction of thermoplastics like POM and UHMWPE into the scene as attractive materials for the creation of custom switches. While this has certainly raised some rather serious questions about the legitimacy of housing materials, and brought about some rather unscrupulous scientific testing by lighter-wielding pyromaniacs, many manufacturers such as JWK/Durock appear to be attempting to explore this alternative materials market for better or for worse.

Starting in early August of 2020, Durock began their exploration of "full POM housing" switches in a very similar fashion to the Novelkeys Cream switches that had seen an incredible amount of popularity over the course of 2020. Finishing up their first set of prototypes, which are now using what we all know as the "old" set of Durock molds, initial samples were sent out to HoltenC of PrimeKB who had previously expressed interest in running POM Durock linears at some point in the future. While an unknown set of internal changes were made to the POM formula or switches over the months following this initial prototype set being sent out, it wasn't until November that newer, updated samples of the POM switches were made using the "new" set of linear molds and sent to HoltenC for review.

Obviously satisfied with the changes and updates made by Durock, HoltenC then went on to order sufficient quantity to actually test on a board and sent them to TaehaTypes to be built into a Meridian prototype board on December 10th, marking the first initial announcement of them as upcoming Durock switches to be sold by PrimeKB. However, as Taeha was digging through the bag of Durock POM linears provided to him by HoltenC, he discovered a similar colored switch sporting an 'NK_' nameplate as seen on Novelkeys' recent switch releases. Obviously not matching with the otherwise blank nameplates seen on the rest of the provided Durock POM linears, HoltenC reached out to Mike from Novelkeys and came to the discovery that at the same time that HoltenC had been exploring these switches, that Novelkeys had also been exploring POM linear switches from Durock, who also makes

their Silk switches. As a result of the similar color scheme and hard to see nameplates on the NK_ versions, it appears that one had accidentally slipped into the batch of otherwise blank nameplated Durock linears that HoltenC had ordered.

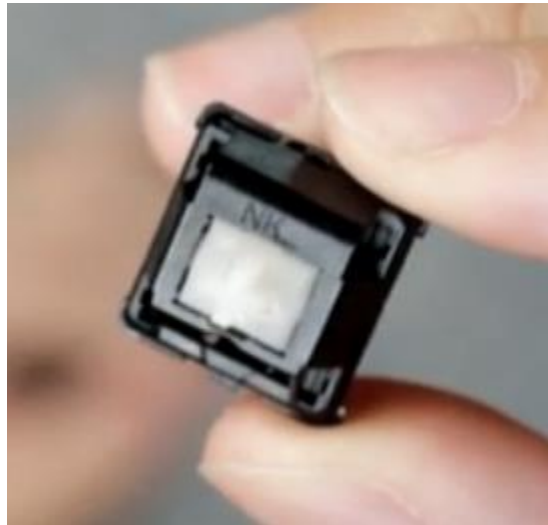


Figure 3: Picture of the single Durock POM Linear featuring NK_ branding from Taeha's stream.

While no drama came about as a result of this accidental reveal of an upcoming Novelkeys POM linear from Durock, this announcement effectively brought to the community's attention that these switches may eventually be available from two sources – PrimeKB and Novelkeys. In addition to this pair of western vendors planning to stock these switches, Durock has also already released these for sale via eastern markets such Taobao and Alibaba as early as November of 2020. Thus, even though these Durock POM linears have yet to be released to western markets, they are technically already available to be purchased if someone was interested in waiting a month or two for shipping from China. Due to the fact that they are still not the easiest switches to get ahold of via Taobao currently due to COVID and holiday related shipping issues, this review will be on the prototypes sent to HoltenC, as he was kind enough to share them with me for the collection as well as for the sake of this review.

Durock POM Linear Switch Performance

While HoltenC was kind enough to send me both iterations of prototypes that he received ('old' and 'new' molds), this review will be focused on the 'new' molds as those were what he sent to Taeha and will be released eventually with Durock's recent upgrades.

Appearance

On their appearance aspect alone, these are fairly unremarkable appearing switches. Quite frankly, this is certainly refreshing amongst the rainbow-colored array of JWK/Durock switches that feel like they're attempting to recreate every possibly color scheme in existence. Featuring all black housings with clear colored stem, these could easily be misinterpreted as Cherry or Gateron KS3 Clears from a distance if not for the blank nameplate and otherwise shiny surface finish. Disassembling the switches and comparing them to the 'new' versus 'old' mold breakdown that I did in my Alpaca V2 switch review, these switches definitely come from the newer set of molds as is evident by the tapered slider rail, mold numbering scheme on the bottom of the bottom housing, and slightly deeper slide rail channels in the top

housing, as can be seen below. In addition to these features, the switches contain a gold-plated spring and did not appear to have any factory lubing on the stems upon inspection.



Figure 4: Top-down view of the linear stem showing tapering on the ends of slider rails.

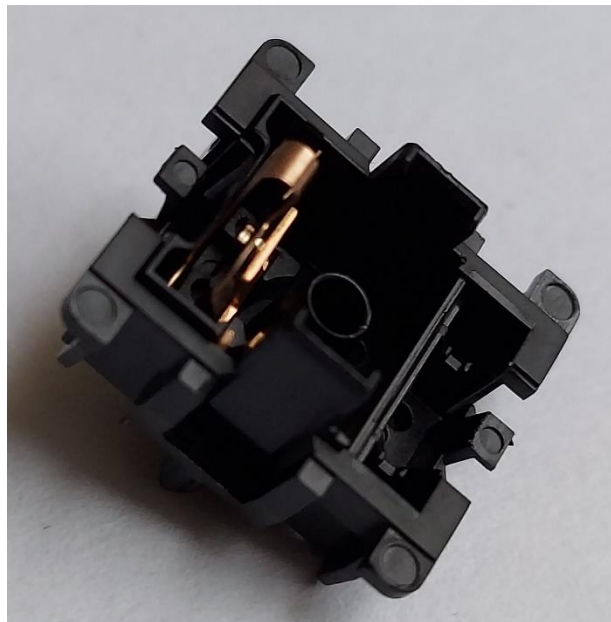


Figure 5: Picture of extra mold circle indentations which is in line with ‘new’ mold Durock switches.

Push Feel

While I was personally a fan of the how Novelkeys Cream switches *could* be used after proper aftermarket modifications such as lubing and “breaking them in”, a fair amount of people were sworn off of POM switches entirely with how they felt stock out of the bag. Unlike Cream switches though, these Durock POM linears most certainly do not suffer out of the box, and actually have a fairly smooth and seemingly ‘prelubed’ quality to them without actually having any applied factory lube. While there is an ever so slight amount of scratch that is more noticeable at higher speeds of activation, at fairly low or normal typing speeds it’s kind of hard to notice this scratch is there at all. In addition to a smooth, prelubed-esque push feel, the bottoming and topping out of these switches are very solid and feel firm even under increased typing speeds.



Figure 6: Finally, a switch *specifically* designed to stop these kinds of high-speed shenanigans.

Given how relatively smooth these switches feel as compared to stock Novelkeys Creams, I decided to swap the stems of a Novelkeys Cream and one of the Durock POM Linears in order to determine if the stems were made of the same material. Based on this brief experiment, I came to the conclusion that these newer stems were not necessarily made of POM like the Novelkeys Cream switches were, which does help explain the difference in noted smoothness when testing these for this review. Subsequent reading of the Taobao sales page for these Durock POM linears confirmed that the stems were made of a new, “mixed” material and not POM.

Sound

Unlike the push feel of these switches in which the scratch is almost virtually impossible to notice unless you’re trying to set a personal best on typeracer, the sound of these switches has a slight scratch noise at all typing speeds. While not necessarily overbearing or super obvious, it is still there just enough for you to notice if you are looking for it particularly. In addition to this very minor scratch sound, there is also an ever so slight spring ping at higher typing speeds that is also hardly noticeable unless you are specifically looking for it.

Even though the aforementioned sounds are definitely things that enthusiasts tend to be concerned about with linear switches and notice the most, the real attention grabber with the sound of these switches is the nearly completely mute bottom out and firm topping out sounds. Given that the topping out sound is ever so slightly louder due to a difference in thickness of the POM as compared to the bottom housings, both of these have very firm, quiet, and solid sounds that are definitely something that many people look for in linear switches.

Wobble

Pretty much entirely in line with my review of the new JWK/Durock linear molds via way of Alpaca V2s, the wobble on these switches is incredibly good. There is a very small, likely unnoticeable with keycaps on level of stem wobble in the N/S and E/W directions, with the wobble being equivalent in magnitude in both directions. In addition to this, there is absolutely no wobble in the top housings of these switches even after having opened a few of them a couple of times for photoshoots, stem swapping, etc. (We can't always be ultra-specific, numerically based scientists all of the time.)

Other

As an additional point of interesting knowledge about these switches, while HoltenC only appears to be interested in the linear versions of these switches to the best of my knowledge, he also did receive tactile versions of these housings/stems for testing. As well, upon opening these for the photo of the stem below, it *does* appear that the legs come with a slight amount of factory lube which didn't show up well in the photo. Given that these currently have no known chance of being sold through western vendors currently, and are only available in bulk from Durock's Taobao, I will not score or really discuss these until one of the aforementioned points changes.

Comparison Notes to Other Notable Linear Switches

Note – These are not aimed at being comprehensive comparisons between all factors of these switches as this would simply be too long for this writeup. These are little notes of interest I generated when comparing these switches to the Durock POM linears side by side.



Figure 7: Switches for comparison. (L-R, Top-Bot: Novelkeys Cream, Tealio V2, Alpaca V2, Gateron KS3 Yellow, Original Aspiration, Cherry MX Black)

Novelkeys Cream

- As noted above in the review, there is substantially more scratch in the Novelkeys Creams both by sound and by push feel than in the Durock POM linears, which appears to be isolated to the stems of the Durock linears not being made of POM.
- Overall, the topping and bottoming out sounds in the Creams are slightly higher pitched and louder than the POM Linears, though not by much.
- While the stem wobble between these two switches is fairly comparable, a few of the Novelkeys Creams that I have leftover appear to have issues with slightly loose top housings which can budge in the N/S direction, specifically.

Alpaca V2

- Without much room for competition, the Alpaca V2s are noticeably smoother than the Durock POM linears and have a much more solid, muted, and firm bottoming out feeling.
- As to the last part of the above statement, though, of all the switches on this list the bottom out feeling of the Alpaca V2s is the most similar to the Durock POM linears with respect to firmness and solid feeling.
- Given that both of these switches were made entirely using Durock's updated molds, the stem wobble on these two switches is practically identical.

Tealio V2

- Completely stock, the Tealio V2 switches are significantly louder and higher pitched than the Durock POM linears at all points throughout the stroke.
- Unlike the POM linears, the Tealio V2s that I've tried feel consistently smoother across several different test switches and don't have the same subtle scratch feel as mentioned above for the Durock POM linears.
- While it is not by much, the Durock POM linears do have a noticeably lesser amount of stem wobble in the N/S and E/W directions than the Tealio V2 switches.

Cherry MX Black

- Completely stock, Cherry MX Blacks have significantly more scratch to them throughout the entirety of the stroke than the Durock POM linears. That being said, the sheer amount of attention people have paid to making or finding the smoothest variations of Cherry MX Blacks means that there most certainly exist versions out there that are smoother than the POM linears.
- There is significantly more noticeable stem wobble in both directions, but especially in the E/W direction of the Cherry MX Blacks than the Durock POM linears.
- Overall, I would say that the Nylon housings of Cherry produce an ever so slightly firmer and more solid bottoming and topping out feeling than the POM of the Durock linears, even though the sound may be similar.

Gateron KS3 Yellow

- The Gateron KS3 Yellows are definitely the scratchiest of the switches on this list for comparison, making them noticeably scratchier than the Durock POM linears.
- Much like the Cherry MX Blacks, these switches also have significantly more N/S and especially E/W stem wobble than the Durock POM linears.
- While the sound from the Gateron KS3 Yellows aside the obvious scratch sound isn't bad, there is a subtle spring ping in the same aforementioned fashion as the Durock POM linears, though it is definitely more noticeable at all typing speeds.

Original Aspiration (OA)

- Contrary to what some marketing material may lead you to believe, the Original Aspiration switches that I have in my collection appear to come from old Durock molds, and thus have a marginally greater stem wobble in both N/S and E/W directions as compared to the Durock POM linears.
- Due to the Polycarbonate top housings of the OA switches, these have a significantly louder and higher pitched upstroke sound than the Durock POM linears.
- Overall, I would say that these are nearly identically smooth to the Durock POM linears, and equally as consistent throughout the entirety of the stroke.

Scores and Statistics

Note – These scores are not necessarily completely indicative of the nuanced review above. If you've skipped straight to this section, I can only recommend that you at least glance at the other sections above in order to get a stronger idea of my opinion about these switches.

Durock POM Linear		
29	/35	Push Feel
22	/25	Wobble
6	/10	Sound
13	/20	Context
7	/10	Other
77	/100	Total

Push Feel

The biggest detractors from this score are the slightly thinner than desirable topping out as well as the constant, subtle scratch. Overall, though, these switches are quite smooth unlubed and have quite a good bottom out feeling, even amongst other JWK/Durock switches.

Wobble

Made completely with the 'new' Durock linear molds, these switches are near perfect with respect to wobble in the top housing and stem. I do still feel though that there is an ever so slight room for improvement with these switches.

Sound

Taking the largest hit due to the slightly more audible scratch noise than one would anticipate, the ever so slight spring ping in higher activation speeds takes away from an otherwise solid and deep sounding switch.

Context

While these switches have yet to be released at the time of this score, the promise of availability through two different western vendors as well as Aliexpress makes these a promising venture for Durock into the 'exotic' housing materials realm. Only time and pricing of these switches will be able to tell if they truly stand the test of time as a solid POM linear option.

Other

While I do applaud a much more successful venture into the POM market by Durock than Kailh, the most interesting aspect of these switches appear to be these 'mystery blend' stems that seem like they have great frankenswitch compatibility and a chance to be the star of these otherwise silent sleeper switches.

Statistics

Average Score			Durock POM Linear		
25.2	/35	Push Feel	29	/35	Push Feel
15.5	/25	Wobble	22	/25	Wobble
5.9	/10	Sound	6	/10	Sound
11.6	/20	Context	13	/20	Context
5.9	/10	Other	7	/10	Other
64.1	/100	Total	77	/100	Total
POM Linear Overall Rank			T-#5/46 (77/100)		
POM Linear 'Hard' Rank			T-#4/46 (57/70)		
POM Linear 'Soft' Rank			T-#10/46 (20/30)		

If you are looking at this statistics section for the first time and wondering where the hell are the other 45 switches that I've ranked are, or what 'hard' versus 'soft' ranks refer to specifically, I'd encourage you to head on over to my GitHub linked in the table above or at the links in the top right hand of this website to check out my database of scorecards as well as the 'Composite Score Sheet' which has a full listing of the rankings for each and every switch I've ranked thus far.

Final Conclusions

While these switches have already had their fair share of an interesting history in pre-release, the jury is still out on how well these switches will be perceived in the community at large. Even though I think that they have a fairly solid out of the box performance, and a strong potential for improvement via aftermarket modification, I don't make the rules as to what the community deems as a successful switch, regardless of what my ego may tell me. With two different western vendors vying for a share of the market with these switches, I certainly hope that we will see a competitive pricing effort that will make these switches not only incredibly affordable absolutely, but relatively more attractive given some of their desirable sound-based characteristics and simple, unoffensive black and clear colorway. Hell, there is even strong potential to see POM-housing tactile versions of these switches being sold through vendors depending on how the reception of the linear versions of these switches go when they finally do roll out. While we are all a bit uncertain as to exactly *when* these switches will finally hit the market, I might honestly consider picking some up if you are a fan of linear switches, interested in good components for frankenswitching, or just out to try to find the best material housings for your next linear switch build. I have a feeling you'll be pretty happy with what you end up with.

Further Reading

Durock POM Linear Alibaba Sales Page

Link: https://durock.en.alibaba.com/product/1600125549272-813573623/DUROCK_NEW_POM_Switch_T1_V2_with_Full_POM_housing_Special_design_Tactile_Stem_Mechanical_Keyboard_Switch_5_pins_Key_Switch.html?spm=a2700.shop_pl.41413.12.7bd06911iogpz4

Wayback:

https://web.archive.org/web/20201220020719/https://durock.en.alibaba.com/product/1600125549272-813573623/DUROCK_NEW_POM_Switch_T1_V2_with_Full_POM_housing_Special_design_Tactile_Stem_Mechanical_Keyboard_Switch_5_pins_Key_Switch.html?spm=a2700.shop_pl.41413.12.7bd06911iogpz4

TaehaTypes Meridian Build with Durock POM Linears

Link: <https://www.twitch.tv/videos/832859394>

Wayback: <https://web.archive.org/web/20201220020932/https://www.twitch.tv/videos/832859394>