

# LEICA BIOSYSTEMS WHITE PAPER

## Decreased Paraffin Melting Time Using PELORIS Parablocks on the HistoCore PELORIS Line of Tissue Processors

The filling and melting of paraffin pellets in the tissue processor can be a messy and time-consuming task. When you consider the time it takes to clean up spilled pellets, the risk of forgetting to top off the paraffin level, and the storage space needed for bags of paraffin pellets, it is easy to see how the parablock is a useful solution to these problems. Leica Biosystems sells parablocks for the HistoCore PELORIS line of tissue processors – PELORIS Parablocks and PELORIS Parablocks X-tra. The following study was conducted to demonstrate the decrease in paraffin melting time between parablocks and pellets of the same paraffin formulations: PELORIS Parablocks vs. Paraplast, and PELORIS Parablocks X-tra vs. Paraplast X-tra.

### Study

Equal amounts of pellets and Parablocks were weighed before loading into the wax chambers for the comparison study. The time for melting began after loading the test volume into the wax chamber, closing the chamber lid, and setting the wax chamber to “Not Molten” on the instrument GUI. The time was stopped once the GUI displayed “FULL” and the paraffin was visually confirmed to be fully molten.

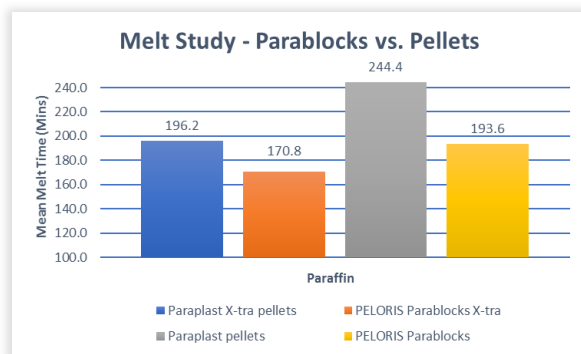
Three different lots were tested for each paraffin type with each lot being tested on two different HistoCore PELORIS instruments (a HistoCore PELORIS 2 and a HistoCore PELORIS 3). A total of 48 melting data points for each paraffin type were recorded. The default wax chamber temperature setting of 65°C was used. Two

different fill volumes were tested; Fill Test 1 which was 3.2 kgs, and Fill Test 2 which was 4 kgs.

### Results

The mean melt time for all melt times recorded for each paraffin type are displayed below:

- PELORIS Parablocks: 193.6 mins (3.2 hrs)
- Paraplast pellets: 244.4 mins (4.1 hrs)
- PELORIS Parablocks X-tra: 170.8 mins (2.8 hrs)
- Paraplast X-tra pellets: 196.2 mins (3.3 hrs)



From the observed results:

**PELORIS Parablocks melt**



**PELORIS Parablocks X-tra melt**



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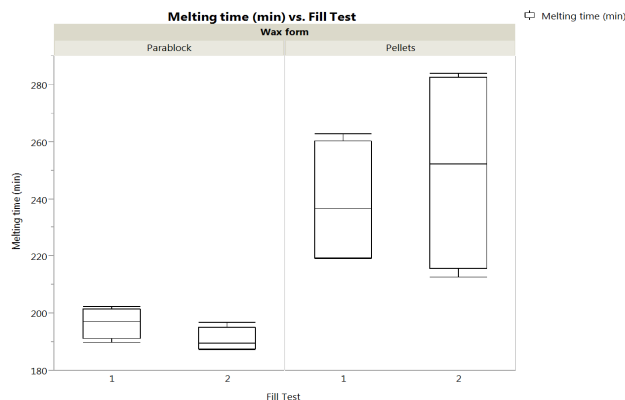
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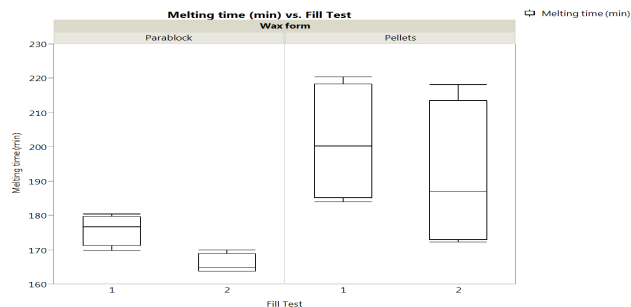
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Variability was seen in melting times throughout the 4 different wax chambers. The pellets displayed a large variance in melt time between the outer and inner wax chambers. The melt times for both PELORIS Parablocks and PELORIS Parablocks X-tra were more consistent throughout all 4 wax chambers than their respective Paraplast pellet formulations. The graphs below are a visual representation of the melt time variance seen in each type of paraffin tested and with each fill test/volume tested.

Variability of Melt Times for PELORIS Parablocks vs. Paraplast pellets:



Variability of Melt Times for PELORIS Parablocks X-tra vs. Paraplast X-tra pellets:



Faster and more consistent melt times, consistent paraffin fill volumes without topping off, and the elimination of pellet spills make PELORIS Parablocks and PELORIS Parablocks X-tra the perfect complement to the HistoCore PELORIS tissue processors.

For more information on PELORIS Parablocks and PELORIS Parablocks X-tra or any of our line of paraffin products, please contact your local sales representative or customer service at +1 844 534 2262. Or order online at [www.leicabiosystems.com](http://www.leicabiosystems.com).

## Product Numbers:

**PELORIS Parablocks – Product #39V1001**

**PELORIS Parablocks X-tra – Product #39V3001**

**Paraplast – Product #39601006**

**Paraplast X-tra – Product #39603002**

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