

# honeybun



**UN**CHAINED  
LABS

## Let it flow

Honeybun is the only rapid viscosity system that pours out data as fast as you can handle it. Whether you've got one sample or ten, Honeybun sips microliters of each sample through a microfluidic channel to get a read on viscosities from 0.5–150 cP in minutes – with zero sample prep or clean-up. Ditch old school, one-at-a-time techniques that use too much sample and level up to the quickest, low-volume viscosity measurements out there.

**10** at a time

**35**  $\mu\text{L}$  per sample

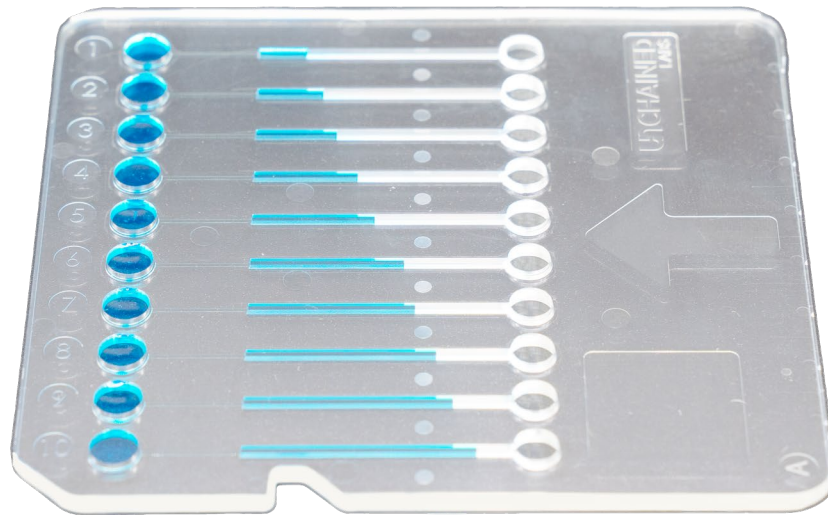
**1** minute runs ( $\leq 10$  cP)

Up to **150** cP



## Grab your bun

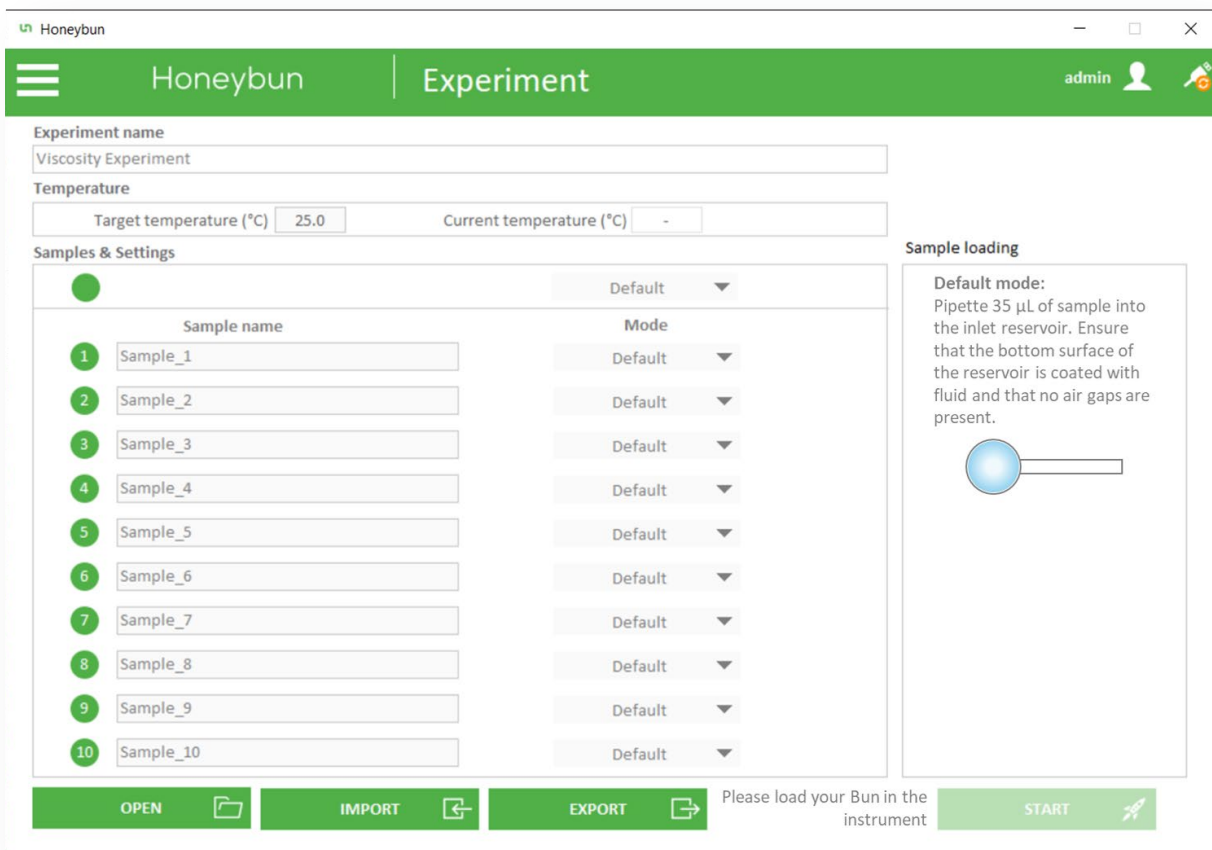
Load up to 10 samples into a Bun consumable, insert and hit go – nothing to it. Honeybun then applies pressure to push the samples through the Bun's microfluidic channels. While you watch them flow on live video, the software tracks how fast samples move through each channel to get you their viscosity. Gone are the days of filling syringes or cleaning expensive chips that are prone to clogging – these Buns are disposable.



**Sample Flow**

## Short and sweet

Fill in all the details about your samples if that's your jam or take the fast track – Honeybun's software will auto-fill everything so you can just start your run. Three clicks get you through experimental setup and right to collecting data.



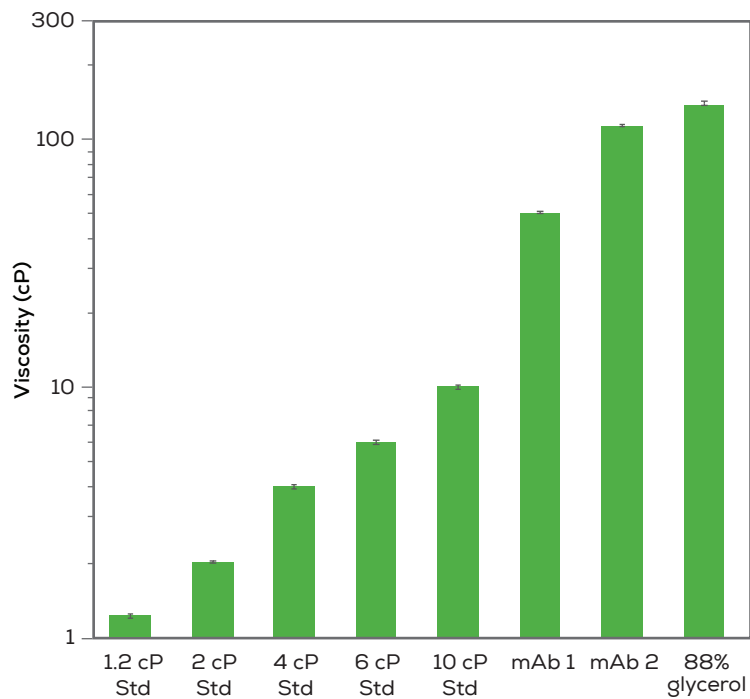
The screenshot shows the Honeybun software interface. At the top, there is a green header with the Honeybun logo and the word "Experiment". Below the header, there are several input fields and sections:

- Experiment name:** A text input field containing "Viscosity Experiment".
- Temperature:** Two input fields: "Target temperature (°C)" with the value "25.0" and "Current temperature (°C)" with the value "-".
- Samples & Settings:** A table with 10 rows, each representing a sample. Each row has a "Sample name" input field and a "Mode" dropdown menu. The "Mode" dropdowns are all set to "Default".
- Sample loading:** A section with a "Default mode:" label and a text box containing instructions: "Pipette 35 µL of sample into the inlet reservoir. Ensure that the bottom surface of the reservoir is coated with fluid and that no air gaps are present." Below the text is a small diagram of a pipette tip.

At the bottom of the interface, there is a green bar with four buttons: "OPEN" (with a folder icon), "IMPORT" (with a left-pointing arrow icon), "EXPORT" (with a right-pointing arrow icon), and "START" (with a rocket icon). To the right of the "EXPORT" button, there is a text prompt: "Please load your Bun in the instrument".

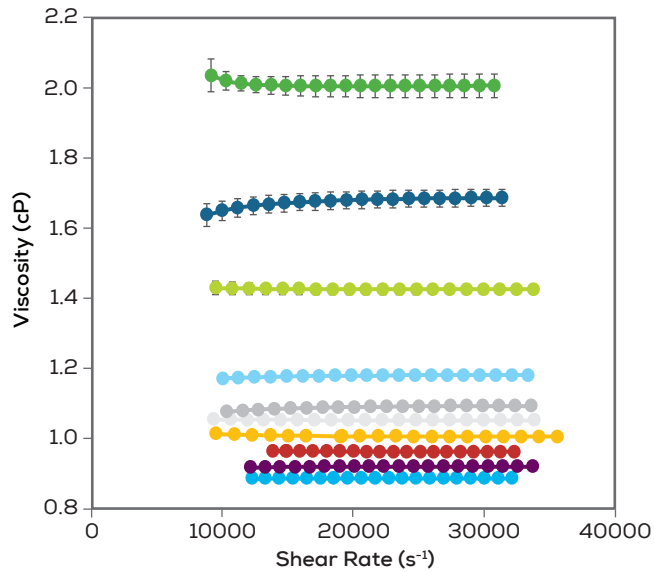
## Satisfy your craving

When you roll with Honeybun, you'll finally be stuffed full of all the sweet viscosity data that you need. Honeybun's speed and throughput make it easier than ever to gather viscosity any time you make a change in your protein, concentration or formulation.



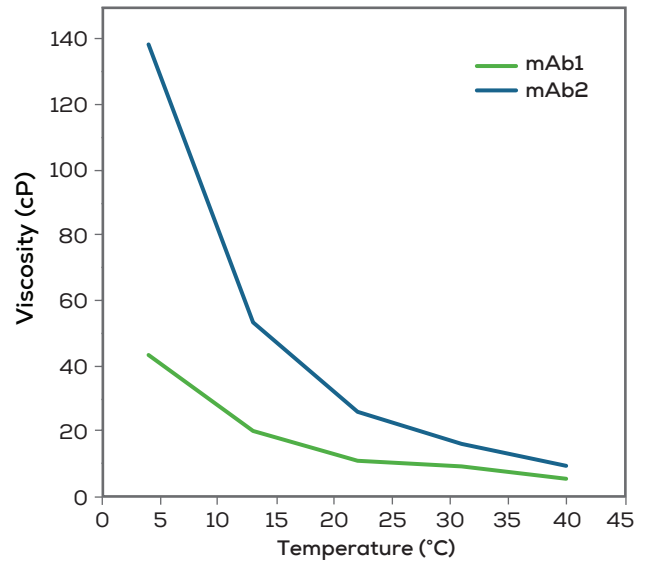
## Know your flow

Every experiment includes a sweep of shear rates in each channel so you can compare how each and every sample is flowing – Newtonian or not.



## Tasty at any temp

Control temp from 4 °C up to 45 °C so you'll always know how your sample behaves – straight out of the fridge, at room temp, or in the heat of manufacturing.



## Specifications

Instrument	Specification
Physical	Dimensions: 46 cm W x 45 cm D x 43 cm H; 28 kg
Computer	Separate computer with Windows 11 included
Electrical	Input voltage: 110–230 V AC 50–60 Hz Max power: 500 W
Nitrogen or compressed air requirements	Pressure: 6–10 bar (87–145 PSI) Flow rate: $\geq 10$ L/min Gas type: Nitrogen or ISO 8573-1:2010 [7:4:4] compressed air
Detection method	Camera: CMOS Resolution: 1920x1080
Approval	CE, FCC
Application	
Sample types	Antibodies and other proteins, vaccines, viral vectors and injectables
Sample temperature range	4–45 °C
Temperature control accuracy	$\pm 0.5$ °C
Viscosity range	0.5–150 cP
Viscosity accuracy	<3%
Viscosity precision	<3%
Consumable	
Bun material	Cyclic olefin copolymer
Samples per Bun	10
Recommended sample volume	35 $\mu$ L (default mode) or 15 $\mu$ L (low volume mode)
Measurement total time	$\leq 1$ min ( $\leq 10$ cP)



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