

OmniKul Cooling Evidence Brief

Principal comparative tests | Concise review edition | July 2026

COMPARATIVE RESULT Across the reported equine and bench tests, OmniKul produced lower temperatures, faster threshold crossing, and longer cooling persistence than ice.

Evidence snapshot

EQUINE MAXIMUM ΔT -8.6°F OmniKul vs -4.0°F ice	EQUINE AT 30 MIN -2.2°F OmniKul vs +2.8°F ice
APRIL BODY/LIMB ROI 64.8°F OmniKul vs 75.1°F ice	HAM SURFACE TO 60°F 87 min OmniKul vs 190 min ice

All temperature changes use ΔT = post-treatment temperature minus pre-treatment baseline. Negative values are colder.

Principal comparative tests

Test	Design	Primary readout
June equine	Three horses; OmniKul and ice on separate test days	Baseline-adjusted lower-limb ROI temperature through 60 minutes
April/Round 2	Focused prior horse thermal-matrix subset	Body/limb and material/slurry ROI proxy temperatures
Ham bench	Mass-matched ham samples; 4-hour and 12-hour runs	Surface/deep threshold time and endpoint temperature

METHODS

Testing methodology

The report consolidates three comparative evidence arms. Temperature and time are retained in their recorded units; chart signs are standardized so colder results appear lower on every temperature axis.

June 2026 equine comparison

Subjects	Three horses tested across two days, each treatment was 15 minutes
Treatment order	OmniKul on the first test day; ice on the second.
Baseline	Rectal core temperature and a pretreatment thermal image were recorded for each horse.
Follow-up	Thermal matrices were collected immediately after treatment and at 15, 30, 45, and 60 minutes.
ROI calculation	A consistent thermal-matrix window was used as the treated-region ROI proxy.
Normalization	ΔT = follow-up ROI temperature – that session's pretreatment ROI temperature.

April/Round 2 equine thermal matrices

Dataset Focused subset of the earlier horse thermal-image matrix records.

Readouts Body/limb ROI proxy temperature, material/slurry proxy temperature, and observed temperature change.

Ham bench tests

Samples	Control 3.29 lb; ice 3.28 lb; OmniKul 3.22 lb.
Cooling media	Ice: 12 lb ice + 0.5 gal water (~2 gal total). OmniKul: 2.0 gal.
Bath matching	Ice 0.610 gal/lb; OmniKul 0.621 gal/lb in the 12-hour comparison.
Sensors	Surface probe, bath/media probe, and deep probe embedded at 4 inches.
Analysis	Time to 80°F, 70°F, and 60°F; 4-hour and 12-hour endpoint temperatures.

Veterinary involvement and oversight

LIVE-HORSE TESTING Wes provided veterinary involvement and oversight for the equine testing program.

PRELIMINARY COMPARATIVE RESULTS

June 2026 equine comparison

OmniKul recorded the larger maximum baseline-adjusted temperature drop (−8.6°F versus −4.0°F). At 30 minutes, the OmniKul ROI remained approximately 2.0–2.2°F below baseline, while the ice ROI was 2.8°F above baseline.

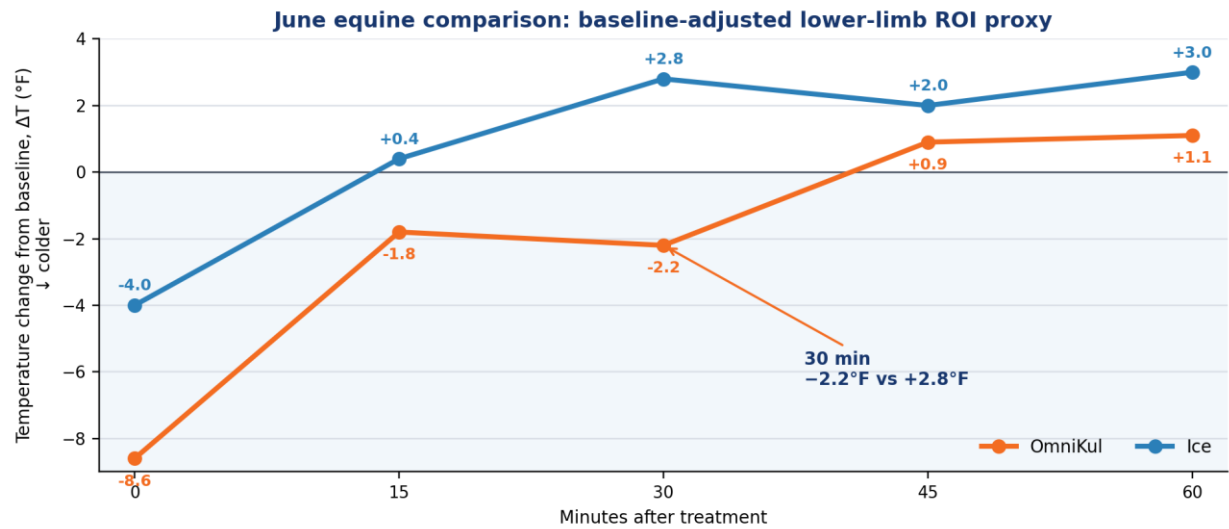


Figure 1. June baseline-adjusted time course. Colder values are lower on the vertical axis.

Measure	OmniKul	Ice
Maximum ΔT	−8.6°F	−4.0°F
30-minute ΔT	−2.0 to −2.2°F	+2.8°F
60-minute image spot range	77.8–79.6°F	84.8–85.6°F

PRELIMINARY COMPARATIVE RESULTS

April/Round 2 equine thermal comparison

The earlier thermal-matrix subset showed lower OmniKul temperatures in both reported proxy regions and a larger observed cooling change.

April/Round 2 equine thermal comparison

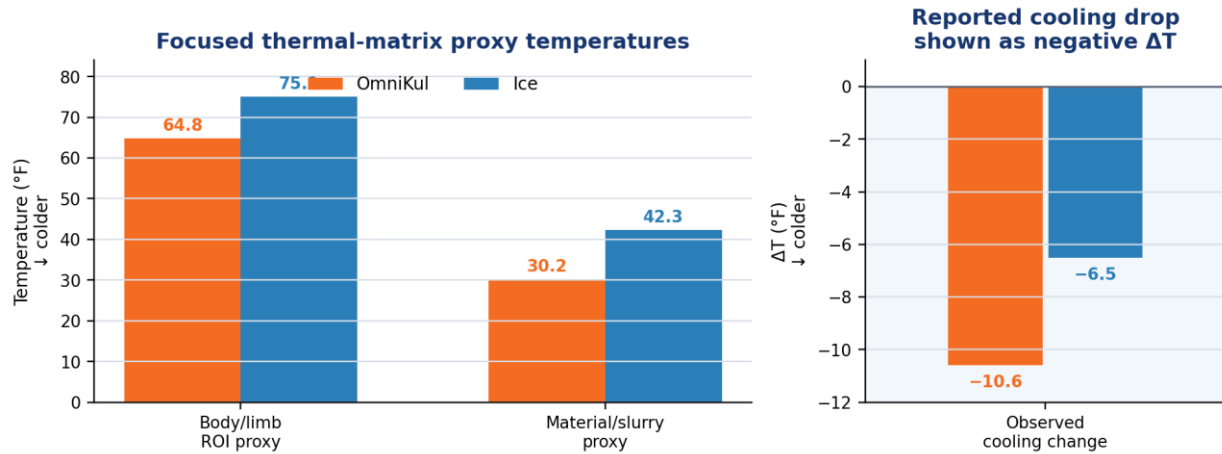


Figure 2. April/Round 2 result summary. Temperature change is signed as ΔT so colder appears below zero.

Measure	OmniKul	Ice	Difference
Body/limb ROI proxy	64.8°F	75.1°F	10.3°F lower
Material/slurry proxy	30.2°F	42.3°F	12.1°F lower
Observed ΔT	-10.6°F	-6.5°F	4.1°F more cooling

DIRECTION ACROSS MEASURES OmniKul is lower on all three April/Round 2 comparisons.

Representative thermal images

The images below show the reported 60-minute post-treatment example. The displayed spot temperatures are retained exactly from the source images.

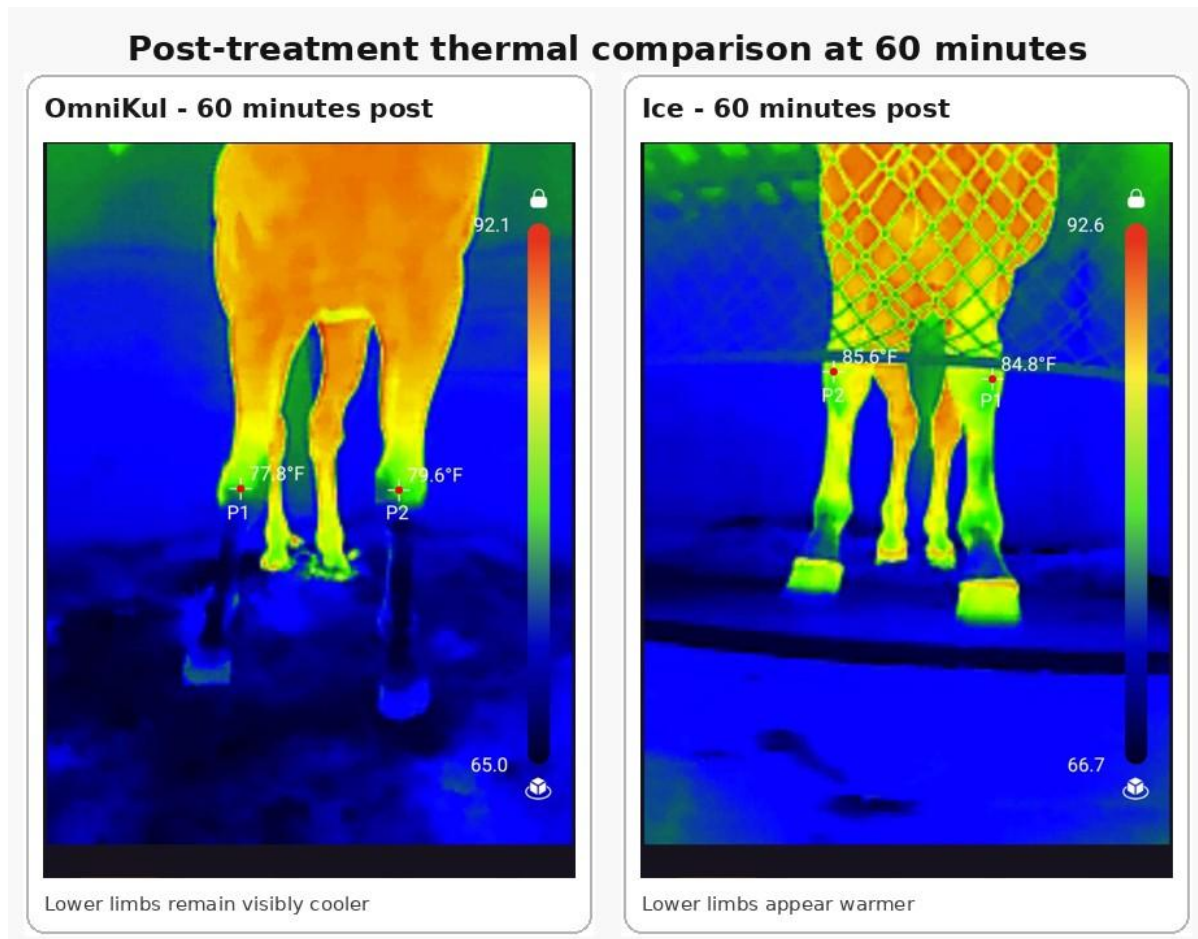


Figure 3. Representative 60-minute post-treatment thermal comparison.

PRELIMINARY COMPARATIVE RESULTS

Ham bench-test comparison

The ham bench tests measured cooling speed at the surface and cooling penetration with a probe embedded four inches deep. OmniKul reached the 60°F surface threshold sooner and produced lower surface and deep-probe endpoints.

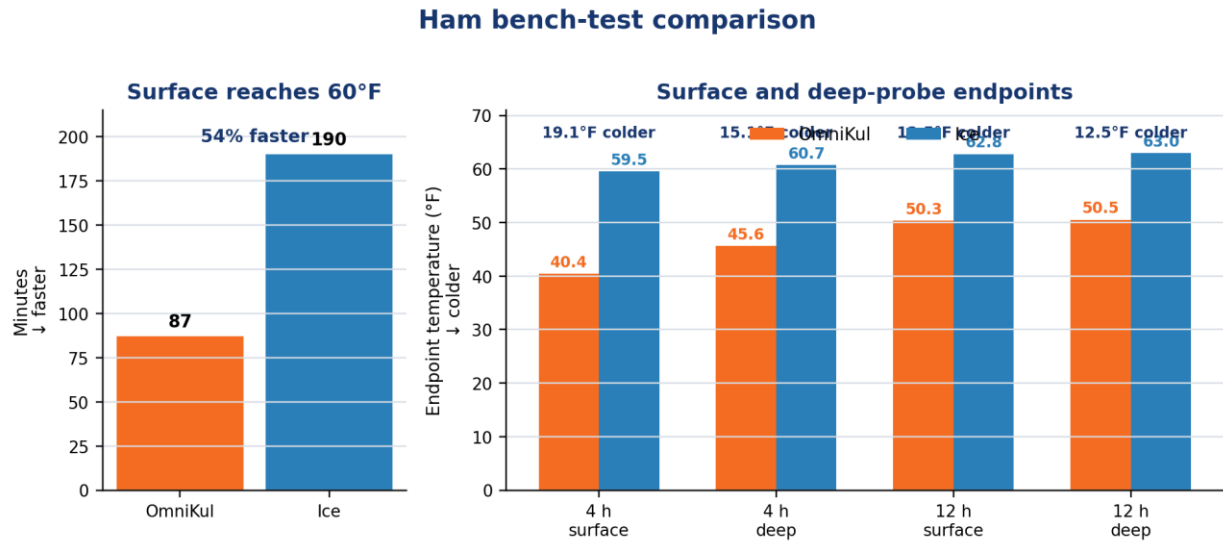


Figure 4. Ham surface-threshold speed and endpoint temperatures. Lower values are better in both panels.

Measure	OmniKul	Ice	Comparative result
Surface to 60°F	87 min	190 min	54% faster
4 h surface	40.4°F	59.5°F	19.1°F lower
4 h deep	45.6°F	60.7°F	15.1°F lower
12 h surface/deep	≈50.3–50.5°F	≈62.8–63.0°F	≈12.5°F lower

PHOTO PLACEMENTS

Machine and wearable documentation

Use current project photographs in the placements below.



Treatment



Equine wearable/application



Ham test set up

Appendix

MAMMALIAN MODEL CONTEXT The equine testing used horses as an early mammalian model. It is not presented as completed human clinical evidence.

Measurement definitions

ROI Region of Interest: the selected thermal-matrix area used for the reported temperature calculation.

Baseline Pretreatment thermal-matrix temperature for that horse and test session.

ΔT Follow-up temperature minus baseline. Negative values indicate cooling below baseline.

Surface probe Probe positioned at the ham surface.

Deep probe Probe embedded four inches into the ham sample.

Endpoint Recorded probe temperature at four hours or twelve hours after treatment start.

Comparative result index

Evidence arm	Measure	OmniKul	Ice
June equine	Maximum ΔT	-8.6°F	-4.0°F
June equine	30-minute ΔT	-2.0 to -2.2°F	+2.8°F
April/Round 2	Body/limb ROI proxy	64.8°F	75.1°F
April/Round 2	Material/slurry proxy	30.2°F	42.3°F
Ham bench	Surface to 60°F	87 min	190 min
Ham bench	4-hour surface	40.4°F	59.5°F
Ham bench	4-hour deep	45.6°F	60.7°F

Source basis: OmniKul Cooling Evidence Report v9 and the comparative figures embedded in that report.