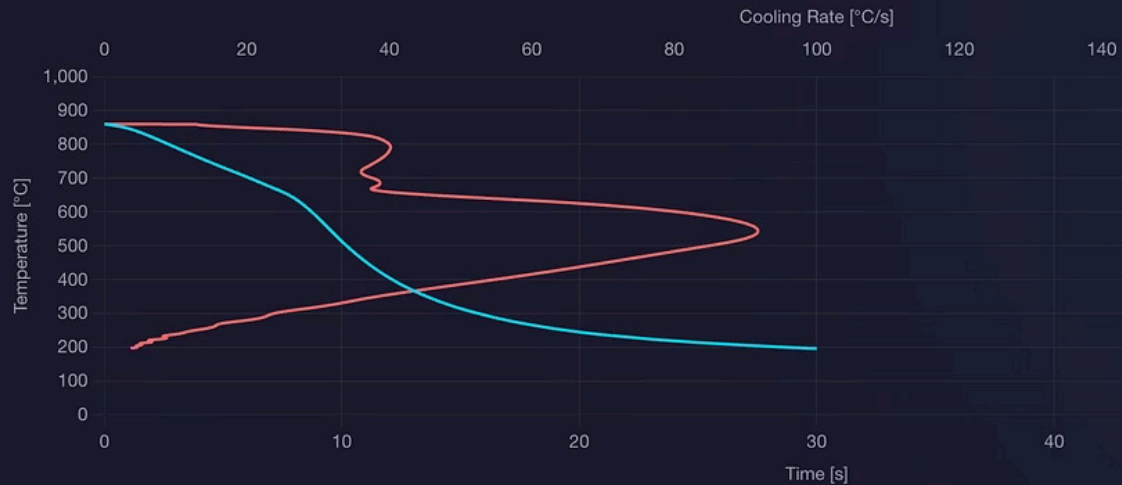


Temperature vs Time Cooling Rate vs Temperature



Test Results

CRMAX

91.73 °C/sec

T(CRMAX)

546.59 °C

T(CRMAX)

9.51 sec

CR550

91.58 °C/sec

TIME600

8.73 sec

TIME400

12.12 sec

CRAVG600-100

52.28 °C/sec

TVP

836.7 °C

TCP

231.62 °C

Θ2

210.68 °C

HP (OILS)

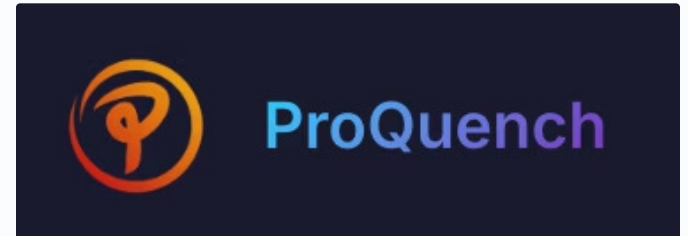
1317.36 -

HP (POLY)

547.91 -

ProQuench v2.0

Advanced Quenchant Characterization Analysis Software

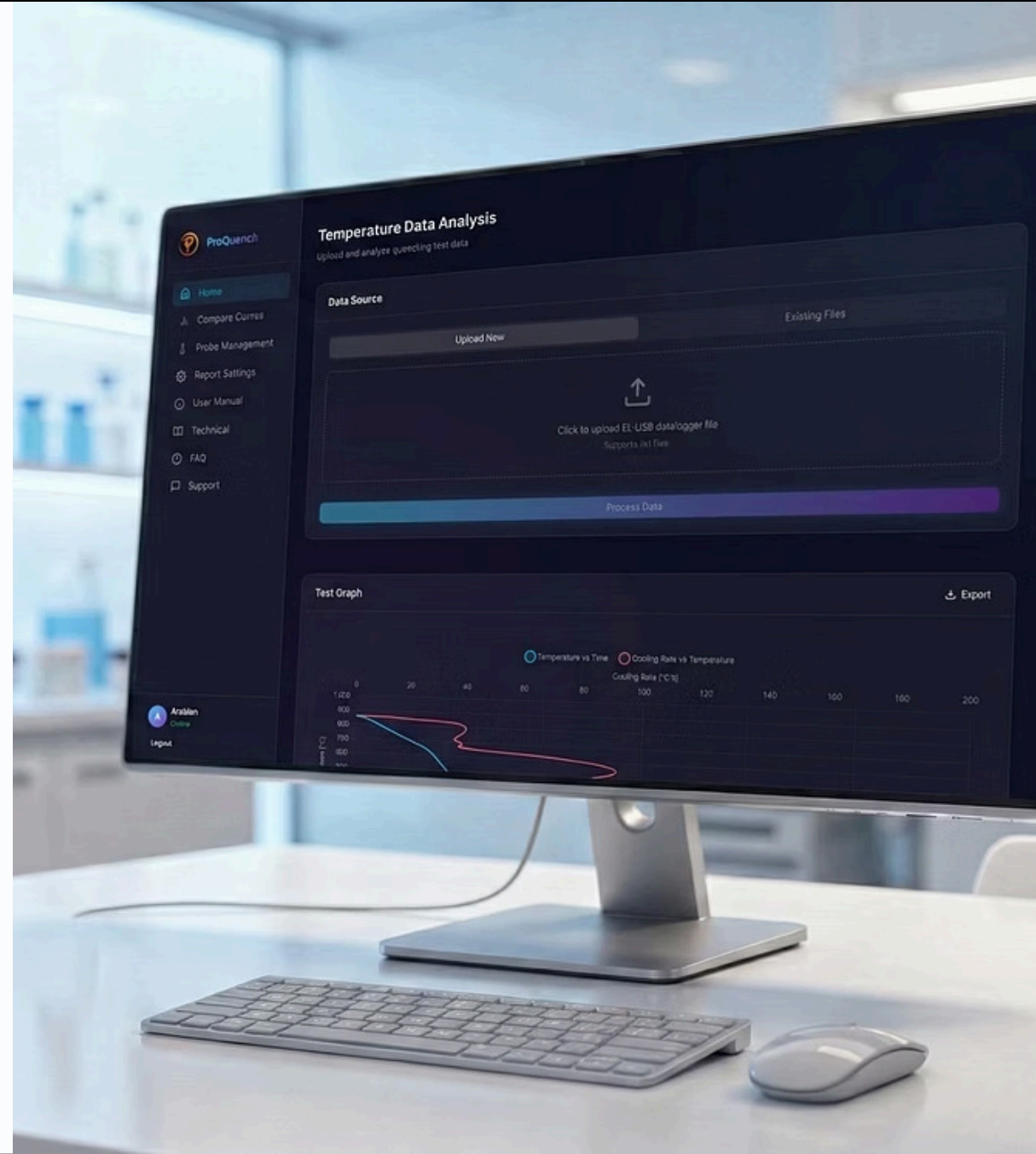


NEW RELEASE

Transforming Quenchant Analysis

We are thrilled to announce the release of **ProQuench v2.0** – our comprehensive quenchant characterization analysis software designed specifically for Pro Quenchemeter systems. Engineered to meet ASTM D6200-01 and ISO 9950:1995 quality standards, ProQuench transforms the way you analyze quenching performance in your heat treatment operations.

This powerful desktop application delivers precision, efficiency, and actionable insights in a single integrated platform. Whether you're managing a busy heat-treatment laboratory or ensuring quality assurance in metallurgical processes, ProQuench provides the analytical tools you need to make confident, data-driven decisions about your quenching media performance.

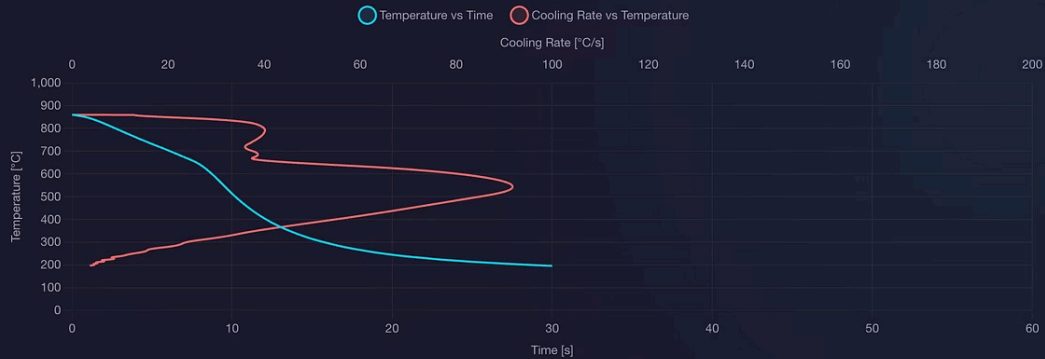


Advanced Cooling Curve Analysis

Upload your test data files and instantly visualize temperature vs. time curves with interactive, high-resolution charts. ProQuench's sophisticated analysis engine calculates all critical quenching parameters automatically, eliminating manual calculation errors and saving valuable time.

Automatically Calculated Parameters:

- **CRmax** – Maximum Cooling Rate ($^{\circ}\text{C}/\text{sec}$)
- **T(CRmax)** – Temperature at Maximum Rate
- **Tvp / $\theta 1$** – Vapor Phase Transition Temperature
- **Tcp / $\theta 2$** – Convection Phase Transition Temperature
- **HP** – Hardening Power (oils and polymers)
- Time to 600 $^{\circ}\text{C}$, 400 $^{\circ}\text{C}$, and 200 $^{\circ}\text{C}$



Test Results

CRMAX

91.73 $^{\circ}\text{C}/\text{sec}$

T(CRMAX)

546.59 $^{\circ}\text{C}$

T(CRMAX)

9.51 sec

CR300

23.92 $^{\circ}\text{C}/\text{sec}$

CR550

91.58 $^{\circ}\text{C}/\text{sec}$

TIME600

8.73 sec

TIME400

12.12 sec

TIME200

28.56 sec

CRAVG600-100

52.28 $^{\circ}\text{C}/\text{sec}$

TVP

836.7 $^{\circ}\text{C}$

TCP

231.62 $^{\circ}\text{C}$

$\theta 1$

812.19 $^{\circ}\text{C}$

$\theta 2$

210.68 $^{\circ}\text{C}$

HP (OILS)

1317.36 -

HP (POLY)

547.91 -

Historical Cooling Rate Comparison

The cooling curve chart now displays a **historical cooling rate range** as a shaded area graph behind your current test curve. This powerful new feature shows the minimum-maximum range from all previous tests using the same quenchant, providing critical historical context for every analysis.

Performance Validation

Instantly identify if your current test falls within expected performance parameters based on historical data

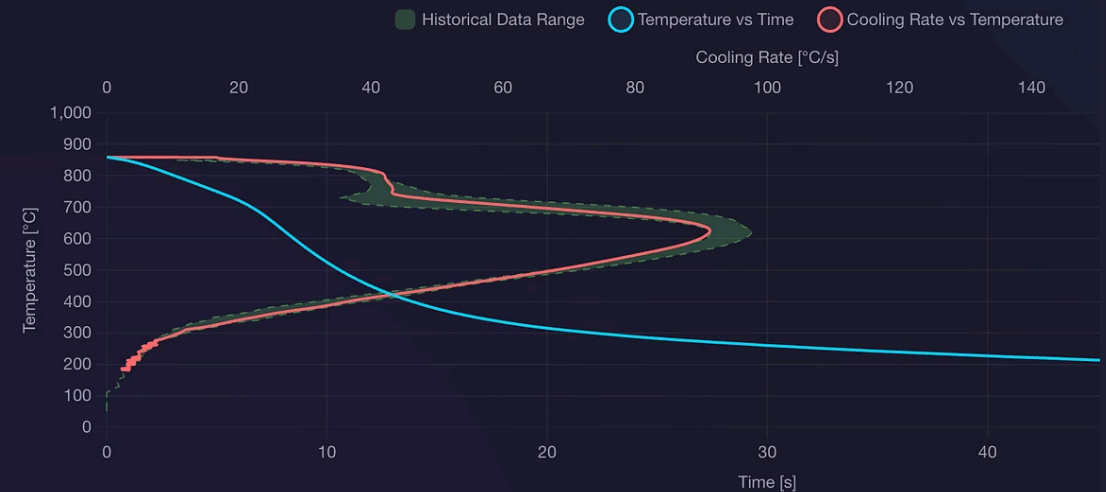
Degradation Detection

Detect quenchant degradation or batch inconsistencies at a glance before they impact product quality

Data-Driven Decisions

Make confident decisions with comprehensive historical context and trend analysis

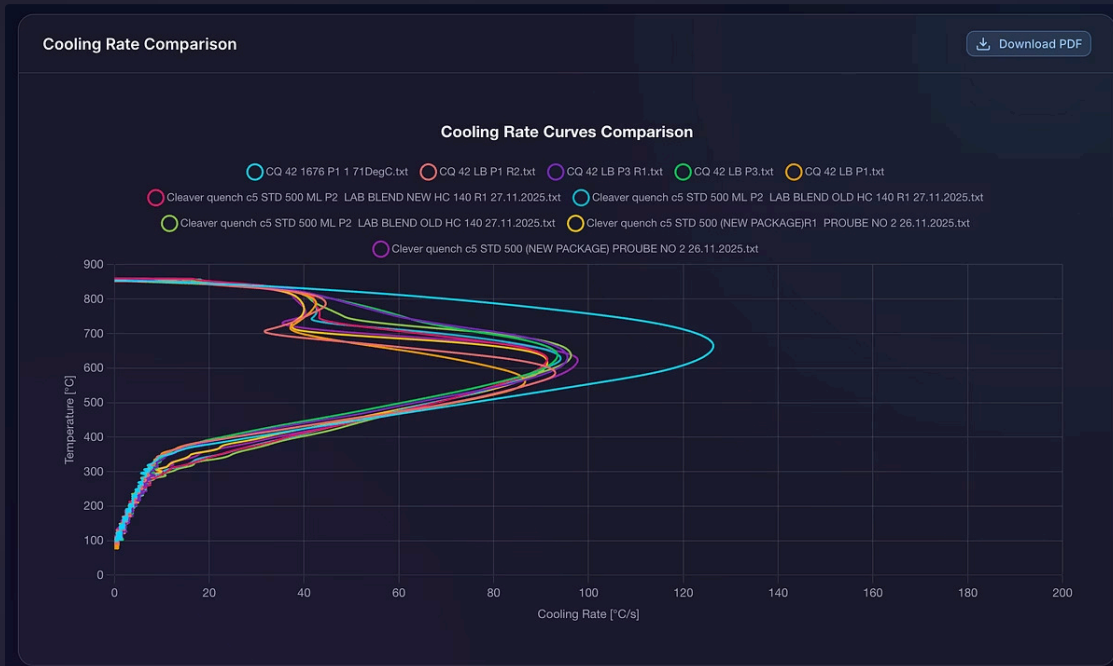
Test Graph



Multi-Curve Comparison Capabilities

Compare up to **10 cooling curves side-by-side** to identify performance variations across batches, quenchant, or testing conditions. Our sophisticated overlay visualization makes trend analysis effortless, allowing you to spot subtle differences that could indicate process variations or quality concerns.

This feature is invaluable for batch-to-batch consistency verification, new quenchant evaluation against established baselines, and long-term performance monitoring of your heat treatment media. The intuitive interface lets you select, overlay, and analyze multiple datasets with just a few clicks.



Comprehensive Probe Management

Track your measurement probes with complete visibility and control. ProQuench's probe management system ensures your testing equipment maintains calibration integrity and provides full audit trails for quality assurance compliance.



Usage Statistics

View detailed probe usage history and test counts for maintenance scheduling



K-Factor Management

Monitor and recalibrate K-factors with real-time calibration status indicators



Audit Trails

Maintain complete records when discarding worn probes for compliance documentation


Probe Management

Manage probes, view statistics, and recalibrate K-factors

 **263**
Total Tests

 **3**
Total Probes

 **3**
Active Probes

 **0**
Discarded

Probes

Probe Name	K-Factor	Tests Done	Status	Actions
A1222-01	1.3000	101	Active	Re-calibrate Discard Probe
A1222-03	1.5000	62	Active	Re-calibrate Discard Probe
A8909-02	1.6300	100	Active	Re-calibrate Discard Probe

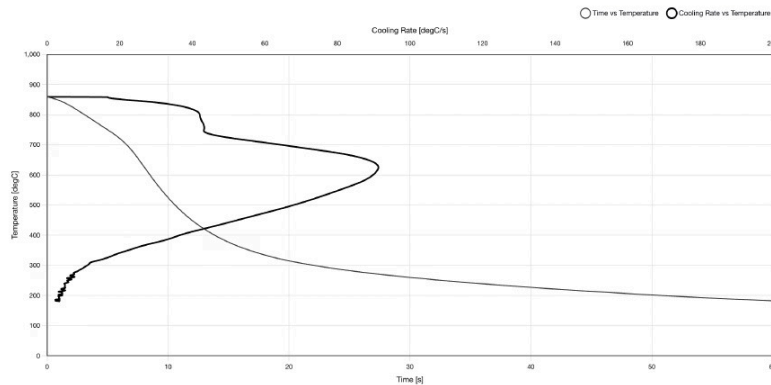


QUENCHANT TEST REPORT

As per ASTM D6200-01 and ISO9950:1995 standards

Date:	2026-01-05	Customer:	-
Quenchant:	CLEAVERQUENCH	Batch No:	-
Test Temp:	-°C	Probe:	A8909-02

COOLING CURVE ANALYSIS



TEST PARAMETERS

Parameter	Unit	Value	Parameter	Unit	Value
CRmax	degC/sec	91.3	CRavg600-100	degC/sec	38.72
T(CRmax)	degC	623.48	Tvp	degC	828.18
t(CRmax)	sec	8.08	Tcp	degC	274.76
CR300	degC/sec	11.07	Theta1	degC	783.93
CR550	degC/sec	80.55	Theta2	degC	240.91
Time600	sec	8.5	HP (oils)	-	1019.8
Time400	sec	13.86	HP (polymers)	-	319.19
Time200	sec	50.8			

Professional PDF Reporting

Generate publication-ready reports with a single click, perfect for customer deliverables, internal documentation, and regulatory compliance submissions.

Report Features Include:

- Custom header and footer branding with your company logo
- Complete test parameters and cooling curve graphics
- Customer name, batch number, and quenchant details
- Professional formatting for immediate distribution
- Easy export for long-term documentation and compliance archives

Each report is automatically formatted to industry standards, ensuring consistency across your organization and professional presentation to your customers.



Built-in Technical Resources

Access comprehensive technical documentation directly within the application – no need to search for external manuals or reference materials. ProQuench puts critical information at your fingertips exactly when you need it.



User Manual

Step-by-step guidance for all features, from basic operations to advanced analysis techniques



Technical Documentation

Mathematical foundations and calculation methodology based on ASTM D6200 standards



FAQ Section

Do's, don'ts, and troubleshooting tips for common scenarios and best practices



- Home
- Compare Curves
- Probe Management
- Report Settings
- User Manual
- Technical
- FAQ**
- Support



Arabian
Online

Logout

Frequently Asked Questions

Do's, Don'ts, and troubleshooting tips for cooling curve analysis.

ASTM D6200 Based



Contents

General Questions

Do's ✓

Don'ts ✗

Troubleshooting

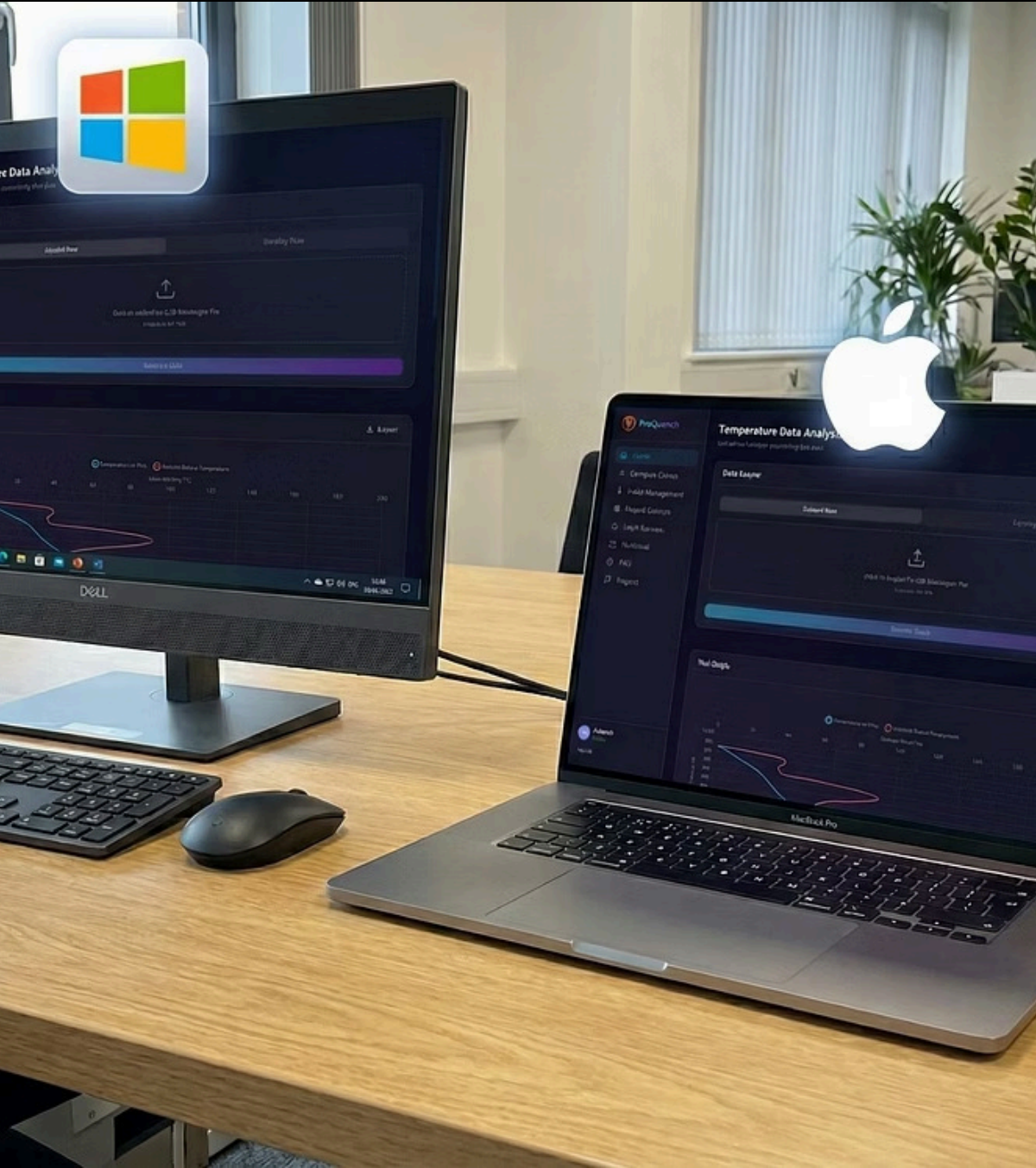
Quick Reference

General Questions

Q1: WHAT IS COOLING CURVE ANALYSIS?

Cooling curve analysis is a standardized method to evaluate the quenching characteristics of heat treating oils by measuring the temperature changes of a heated metal probe as it cools in the oil.





Secure, Cross-Platform Access

License-Based Security

ProQuench uses MAC address-based licensing to ensure secure, authorized access to your data. Simply launch the application – authentication happens automatically in the background, providing seamless security without disrupting your workflow.

Cross-Platform Availability

ProQuench is now available for both **Windows** and **macOS** operating systems:

- Windows Installer (x64 & ARM64 compatible)
- macOS DMG (Apple Silicon optimized)

Get Started with ProQuench Today

01

Download the Installer

Access the installer for your platform at our secure download portal

02

Run the Application

Launch ProQuench – license verification happens automatically

03

Upload & Analyze

Upload your first test file and start analyzing with confidence

📄 **Download Link:** <https://drive.google.com/drive/folders/1D9RpJt86B095LPjo-gR9or-rLLDE-yrH?usp=sharing>

Contact Us

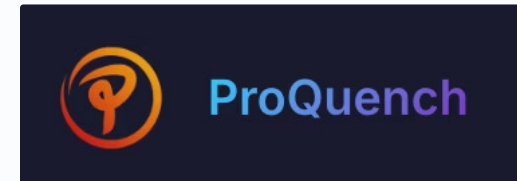
Have questions or need assistance? Our technical support team is here to help with installation, license activation, or any questions about ProQuench functionality.

Technical Support:

abhayasimha@provactech.com

Website:

provactech.com



We are confident that ProQuench will elevate your quenchant testing workflow and deliver the precision your metallurgical processes demand. Thank you for choosing ProQuench!