

Accelerating Rate Calorimeter 244 (ARC®)

Accelerating Rate Calorimetry

The cost-effective ARC® 244 is designed to safely measure the amount and rate of heat release associated with the processing or storage of chemicals within a container volume between 1.5 ml and 8.5 ml. This is the calorimeter which uses the same design as the first ARC® system developed by DOW for those customers interested in keeping the same platform.

This information is vital in developing and evaluating processes to ensure safe operation and to prevent thermal runaway which can have devastating effects.

The Accelerating Rate Calorimeter 244 (ARC® 244) technology is integral to designing inherently safer batteries as well as measuring energetic materials used in such products as explosives, propellants, and air bags.

Major Features and Benefits

- Tube heater reduces heat losses due to reflux
- Windows 10™ operating system standard
- Smaller footprint
- Lift mechanism for calorimeter top
- Experimental wizards for easy test set-up
- Power Compensation Module (optional)
- Increased safety and interlock features
- Operation modes:
 - *Heat-Wait-Search* (primary mode of operation)
 - Iso-Fixe technique
 - Iso-Track technique
 - Ramp mode for fast screening of unknown samples
- With *VariPhi*®
 - *Heat-Wait-Search*, with $\Phi = 1$
 - Constant power

- Constant heating rate
- Fire exposure
- True isothermal mode