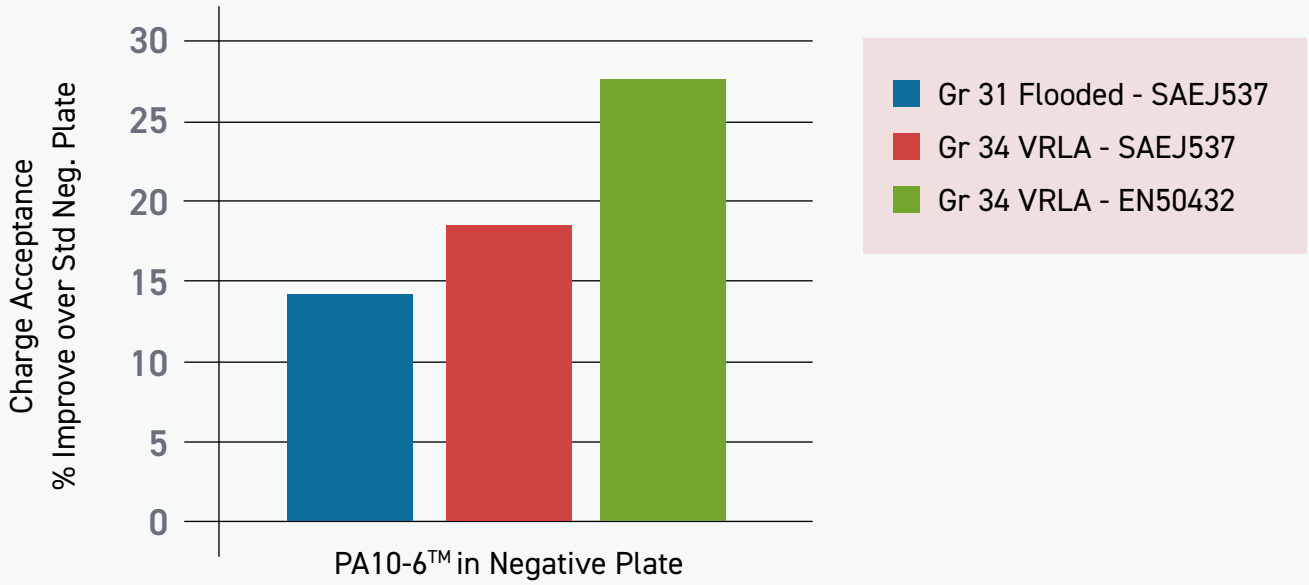
PA10-6 : Paste Additive for Flooded, EFB & AGM Batteries

At Hollingsworth & Vose (H&V), we are committed to providing advanced material solutions for filtration and energy storage applications that contribute to a cleaner world. One of our premium offerings is PA10-6 which is a microglass fiber additive used as a processing aid in lead battery assembly. PA10-6 is a microglass fiber additive that is used as a processing aid in lead battery assembly. It can also contribute to improving battery performance and life.

PA10-6 is a glass microfiber additive for the lead paste mix; it improves plate curing during processing. The glass fiber is engineered to disperse in the paste mix, improving structural and performance properties. It has a fiber diameter that corresponds well with the pore structure of the pasted plate and can be used in both AGM and flooded batteries.

PA10-6 is added to the negative or positive paste mix. It enables electrolyte access to the active mass & improves

- Processing (curing, drying, plate stability): a specially formulated fiber diameter that corresponds well with the pore structure of the pasted plate which enables more homogeneous curing, drying & gives improved structural properties to the paste mix. It may also help reduce curing time.
- Paste reinforcement: Via ‘concrete-rebar’ type of reinforcement
- Battery capacity
- Charge acceptance: With enhanced access of electrolyte & lead oxide
- Automotive crank



PA10-6 addition leads to improved charge acceptance in different battery configurations

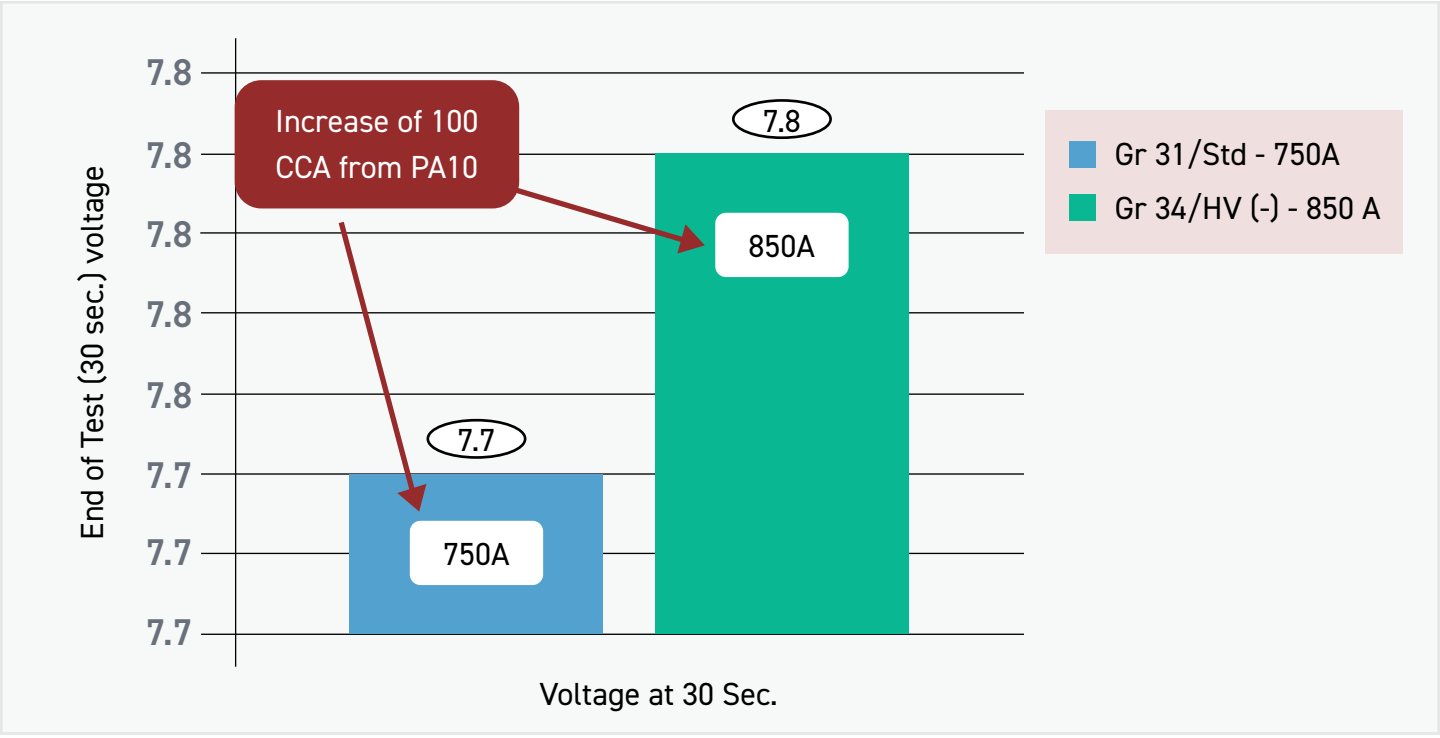
Standard Negative Plate
after J240 Test

22% NAM Loss

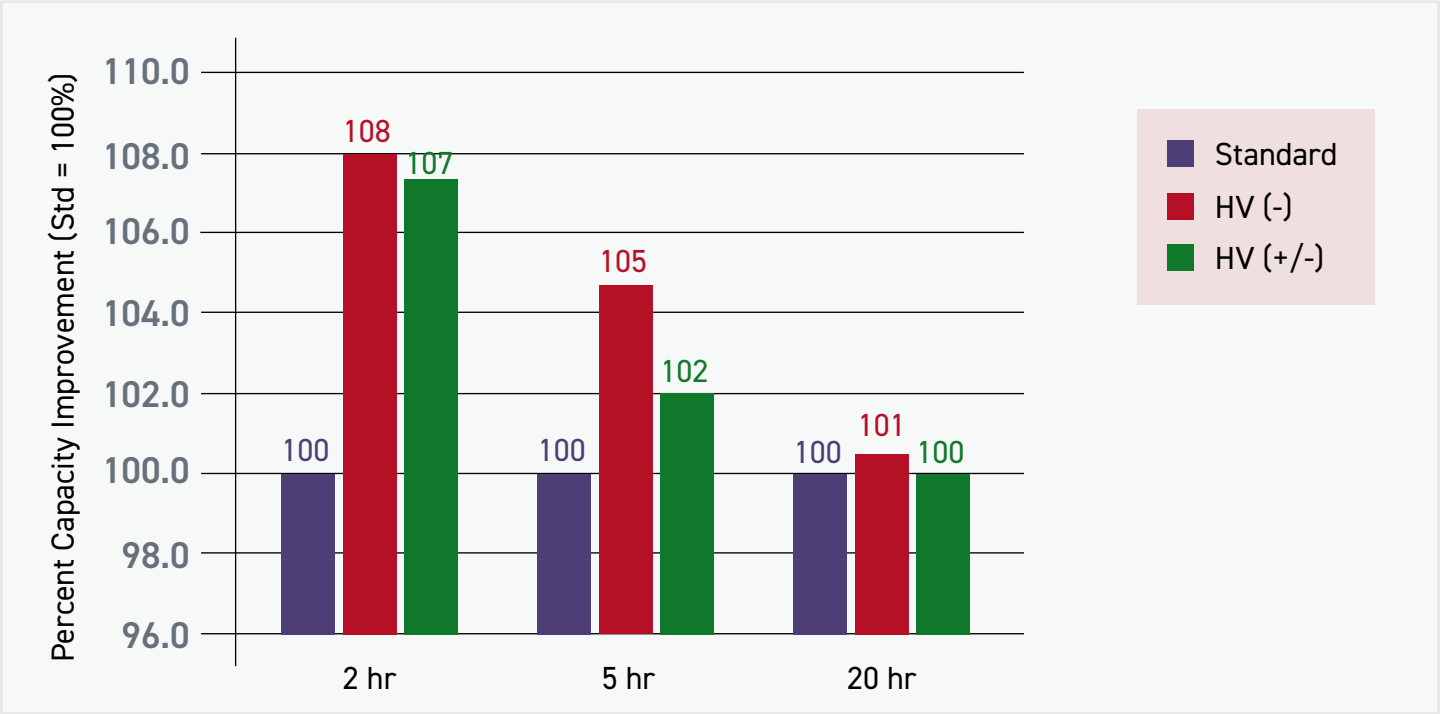
1.5% modified negative plate
after J240 Test

3% NAM Loss

PA10-6 can help reinforce the paste to enable better structural stability leading to a significant reduction in NAM (negative active material) loss after cycling in a flooded battery.



Cold cranking rate improvement : PA10-6 enabled an additional 100A for the same end voltage.



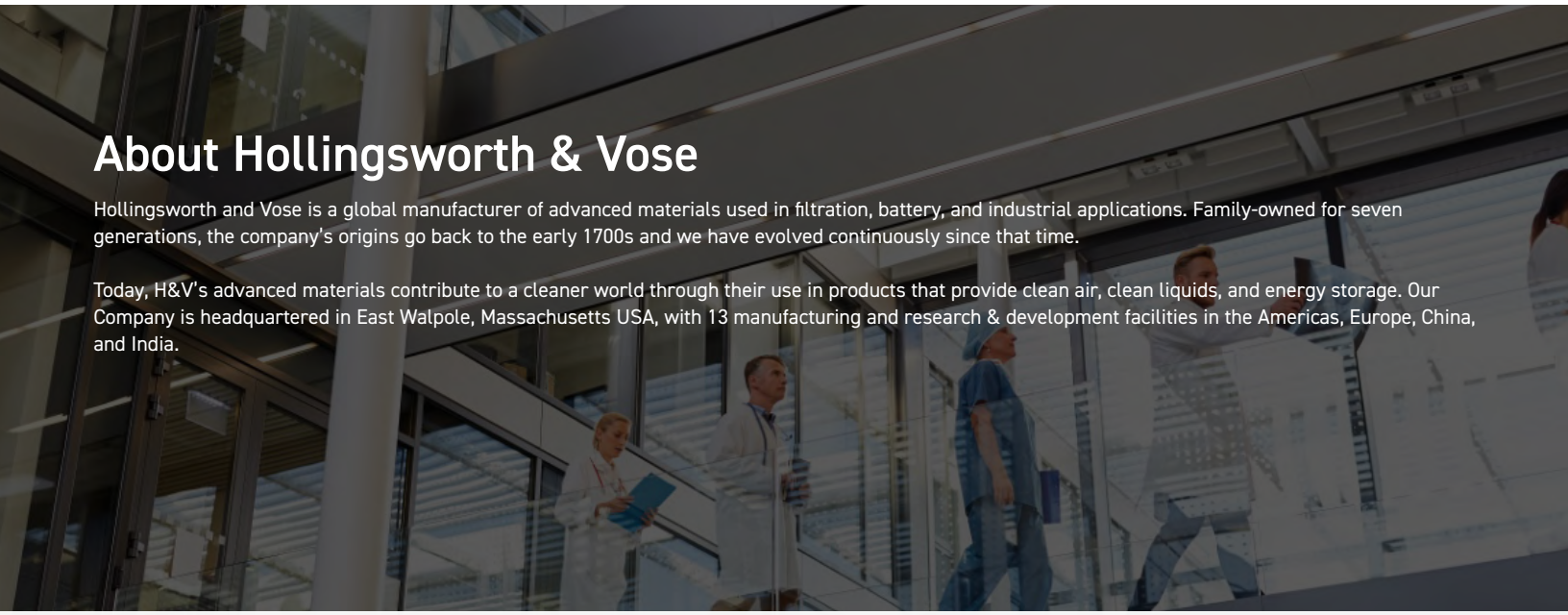
Capacity is particularly improved for high rate modes - 2hr and 5 hr. Less of an effect is observed for low rate mode – 20 hr.

PROCESS

- Improved plate uniformity in curing
- Reinforcement of the active material
- Conduit for electrolyte into the active material
- Paste becomes 'creamier' benefiting plate pasting, better grid-wire wraparound
- Retains moisture content
- Minimal impact on paste density ranges
- Reduced surface dusting

PERFORMANCE

- Improved charge acceptance
- Improved capacity
- Increased life by delayed dryout especially in hot environments
- Improved CCA



About Hollingsworth & Vose

Hollingsworth and Vose is a global manufacturer of advanced materials used in filtration, battery, and industrial applications. Family-owned for seven generations, the company's origins go back to the early 1700s and we have evolved continuously since that time.

Today, H&V's advanced materials contribute to a cleaner world through their use in products that provide clean air, clean liquids, and energy storage. Our Company is headquartered in East Walpole, Massachusetts USA, with 13 manufacturing and research & development facilities in the Americas, Europe, China, and India.