Focus on Curing Non-Styrene-Based Resins

One of today's big challenges in the world of resins is how to use non-styrene-based resins when conventional curing methods are not effective. New regulatory standards are moving the industry into new resin technologies that can enable curing at processing times that are acceptable.

Arkema's Michael Wells has spent most of his career researching free radical initiator systems and thermosetting resins. As a senior applications engineer in the Luperox® organic peroxides business group, Wells will discuss his findings regarding alternative resin technologies and the processing challenges they present.

"New resin technology seeks to eliminate styrene emissions through the use of alternative monomers or by eliminating the monomer altogether," Wells explained. "This requires using a resin with a shortened backbone chain that will remain flowable until the cure cycle is executed. Hence, we face some unique challenges in curing such resins."

Wells' presentation at this week's American Composite Manufacturers Association show will review the problems associated with curing resins based on alternative monomers, specifically the need for higher energies to initiate curing. In free radical initiators, this could mean moving away from traditional MEKPs for primary curing. The presentation will also consider more aggressive curing agents when using monomerless resins.

"The presentation will not debate the pros and cons of styrene regulation," Wells noted. "It will cover what alternatives are available and what processing challenges they present as the industry tries to move away from styrenated resins."

Arkema's Luperox® organic peroxide business group has long supported the composites market with innovative research and development and applications research in support of making their customers' products sustainable and more profitable. Wells' presentation will summarize the findings of the industry's latest challenge. The presentation will be held Thursday, January 31 from 2:00 to 2:45 at the Education Sessions.

For more information, please visit www.arkema-inc.com *[1].*

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