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VeoVa[™] vinyl ester-based emulsions for high-performance intumescent coatings

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Intumescent coatings provide passive fire protection by expanding into a thermally insulating foam at high temperatures. This expansion prevents fire spread and protects structures. The viscoelastic behavior of polymeric binders, such as polyvinyl acetate used in waterborne cellulosic intumescent coatings, significantly influences foam expansion and char formation. VeoVa[™] vinyl ester, with its highly branched structure, is the preferred co-monomer for enhancing the intumescent properties of these coatings. Unlike other co-monomers, such as ethylene or acrylates, VeoVa[™] monomer not only improves fire protection performance but also enhances water repellence, weather resistance, and incan paint stability.