

IMPROVED IMPLEMENTATION OF THE DVP&R DEVELOPMENT PROCESS

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Abstract

Large, structural parts are rapidly converting from metal to thermoplastic composite materials in the North American Automotive market. Primary reasons include weight reduction and improved integration. As a result, Automakers are developing part standards to guarantee quality and fitness for use of these modular systems. This process is called Design Verification Planning & Reporting (**DVP&R**). It reveals some surprisingly large variations in material properties within any particular part, thus highlighting the need for both a more effective use of Computer Aided Engineering (**CAE**) tools in the early stages of development, and for increased cooperation and communication between all companies in the supply chain.

This paper discusses particular results of such DVP&R testing relative to assumed material properties. Selected case studies are presented generically, such that good business practices as well as opportunities for improvement may be shared with the composites community at large. The goal is an improved utilization of resources, resulting in more efficient development processes and an open working environment.