

유한요소법을 이용한 하이드로포밍 성형성 향상 기술 개발

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The development of hydro-formability improving technology using FEA

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Abstract

Hydroforming Technologies has been popular with advanced automotive companies in Japan, USA and Europe in terms of light car body, cost reduction, dimension precision, etc. However, there are complicated forming factors regarding tube behavior for each process such as bending, preforming, hydroforming. Those factors have to be considered at the beginning of design stage in order to produce highly-qualified parts. So, advanced automotive companies have adopted a feasibility study with FEA. On the other hand, if producer attempts to improve its forming process during prototyping, FEA is a useful tool to get good solutions as soon as possible. This study deals with improvement of hydro-formability using FEA during prototyping.

Key Words : Hydroforming, FEA, prototyping

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