

## **Robert Eller Associates, Inc.**

**CONSULTANTS TO THE PLASTICS AND RUBBER INDUSTRIES**  
**TECHNICAL / ECONOMIC / MARKET ANALYSIS & MANAGEMENT DECISIONS**

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February 2003

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### **AUTO INSTRUMENT PANEL SKINS SHIFT FROM VAC FORMED SHEET TO SLUSH MOLDING AND PU SPRAY**

Akron, OH--PVC/ABS thermoformed skins for instrument panels have lost market share to slush molding and polyurethane spray in both North America and Europe. Market demands for accurate, uniform grain retention and the emergence of instrument panels with sharper angles have favored these alternatives to vacuum forming despite their higher cost.

Bob Eller, President of Robert Eller Associates, Inc, (REA), the Akron, OH-based consulting firm indicated that “the growing popularity of the invisible airbag door and the requirement for deployment at low temperatures (-30-40 degrees C) have favored alternatives to PVC but recent mechanical developments at Audi facilitating low temperature airbag deployment, and favorable economics will support the continued use of slush-molded PVC ”.

PVC/ABS sheet’s market share in North American instrument panel skins dropped from 56% in 1997 to 35% in 2002. (See graphs). Favorable pricing vs PU and TPO alternatives will reverse the decline in PVC slush skin share and result in share gain through 2007.

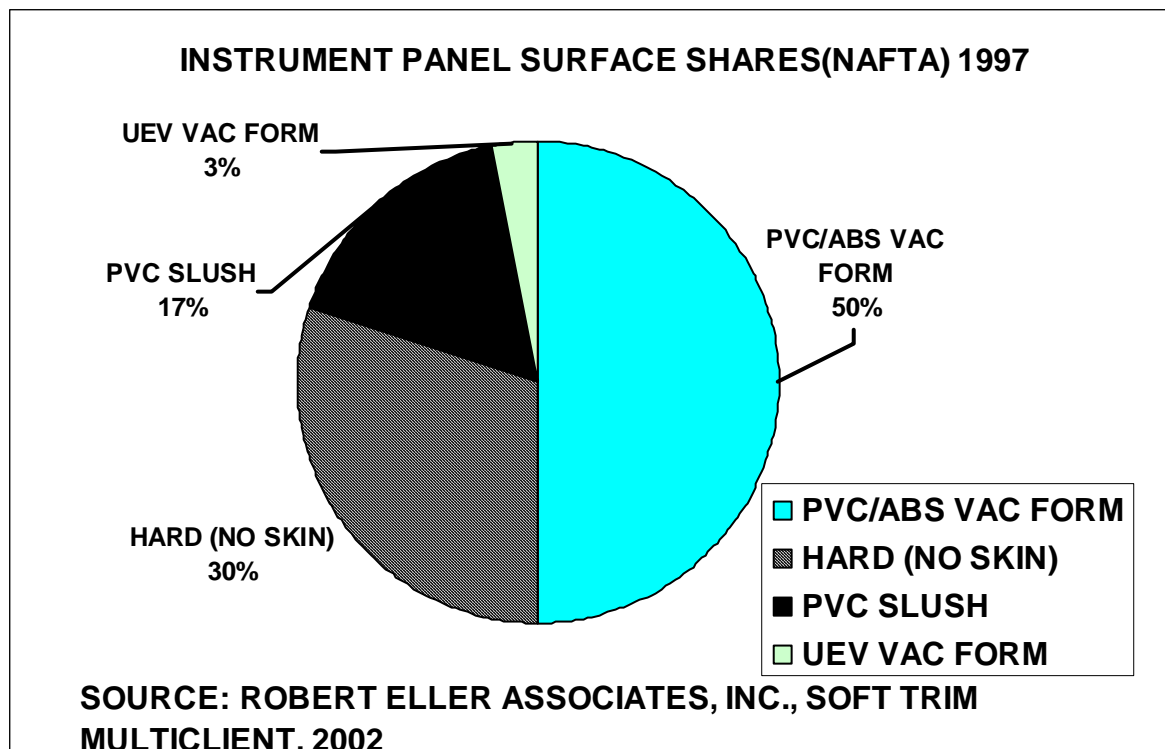
PU spray skins from Recticel will enjoy big gains in both European and N. American high-end vehicles in the next 5 years due to the excellent grain reproduction and the ability to accommodate sharp angles. Eller adds” the success of PU spray in instrument panels has encouraged the use of PU

spray in door trim panel production and we are looking at the savings potential from semi-direct door trim fabrication processes”

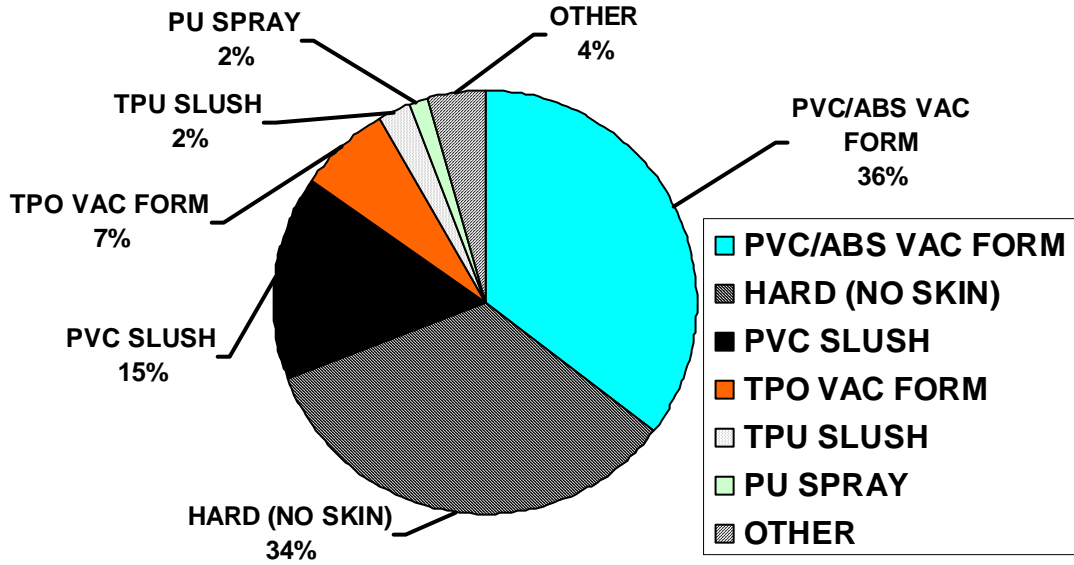
These are among the trends revealed in the multi-client study:

**Automotive Interior Soft Trim: Skins, Foams, Coated Fabrics, Textiles, and Acoustic Barriers,**

being offered by Robert Eller Associates, Inc. (Akron, OH). This is REA’s second study analyzing the technology, economics and markets for auto interior soft trim. The study is available from REA. A prospectus and table of contents can be reviewed on their home page([robertellerassoc.com](http://robertellerassoc.com)). Email address: [bobeller@prodigy.net](mailto:bobeller@prodigy.net).



### INSTRUMENT PANEL SURFACE SHARES(NAFTA) 2002



SOURCE: ROBERT ELLER ASSOCIATES, INC., SOFT TRIM  
MULTICLIENT, 2002