

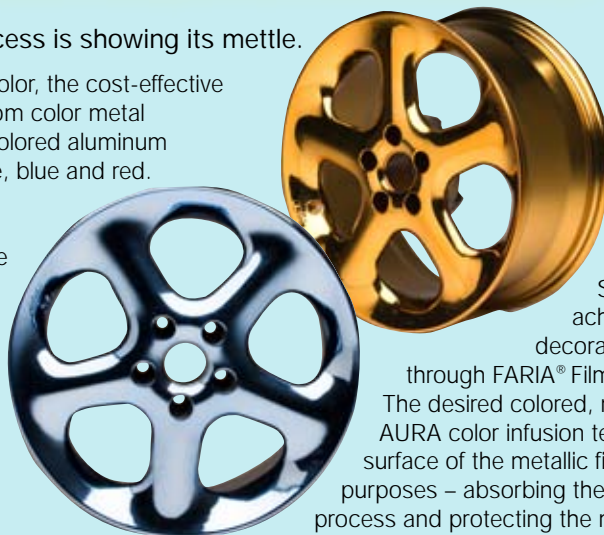
Welcome to the Fall '06 Fantasia eNewsletter. This edition focuses on two new advancements in AURA[®] Color Infusion Technology, as well as the latest Fantasia news.

Innovative Technology Infuses Metal Components with a New AURA[®]

The AURA[®] Color Infusion Technology process is showing its mettle.

Traditionally used for infusing plastic parts with color, the cost-effective AURA infusion process can now be used to custom color metal substrates. Bayer MaterialScience LLC recently colored aluminum wheels in a variety of hues, including gold, orange, blue and red. This application is already garnering interest from automotive and non-automotive OEMs, and their interest is really just the tip of the iceberg. The time may be near that consumers can purchase aftermarket aluminum wheels and have them dyed to match the body color of their vehicle.

Metallic coloring using AURA infusion technology can be achieved in several different ways. For instance, a plastic part can be treated with either physical-vapor deposition (PVD) or electroplating (EP) to produce a metallic layer on the plastic's



surface. Next, a clear coating is applied to this metallic surface. The coating is then infused with dye using the AURA infusion process to produce the colored, metallic finish. Certain polyurethane and acrylate coatings are particularly well suited for this application.

Similar metallic finishes can be achieved using relatively flat parts decorated with metallic appearance films – through FARIA[®] Film Insert Molding (FIM) technology. The desired colored, metallic finish is created by using AURA color infusion technology to color the polymeric surface of the metallic film. The polymer film serves dual purposes – absorbing the dyes from the AURA infusion process and protecting the metal from tarnishing.

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AURA[®] Infusion Technology Improves the Economics of Color Customization



When a crayon wears down to its paper wrapper, you don't throw away the crayon. You peel back the paper and wear the crayon down to a tiny nub until you can't use it anymore.

A similar scenario is now part of the AURA[®] Color Infusion Technology process. A newly developed technology recycles spent solvent and allows unused dye to be reused during later applications, allowing most of the color to be used for actual coloring. Therefore, the process is very economical and environmentally friendly.

In the AURA infusion process, finished plastic parts are immersed in or sprayed with a mostly aqueous solution containing dye until the desired color intensity is achieved. The spray system is particularly useful for large parts, such as chairs, where it is often not practical to use the immersion process. In either instance, the dye solution is applied using special equipment developed by Hennecke Machinery Group, a business unit of Bayer MaterialScience LLC.

After a short period of time, the parts are removed from the dye solution, rinsed with water to remove excess dye solution from the surface and finally dried to produce a market-ready product.

When the need arises to produce a part with a different color, the spent solution can be treated to recover both dye-free solvent and most of the unused dye. The regenerated dye-free solvent can be used to clean process vessels and to formulate a new color solution, thus being used over and over again.

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**New AURA[®]
Video Added
to Web Site**

Imagine a world not limited by color. Imagine the power to custom color on demand. Imagine the possibilities while you view the new AURA[®] Color Infusion Technology video that was just added to the Fantasia[®] Web site home page at www.bayerfantasia.com

IMAGINE
THE POSSIBILITIES

