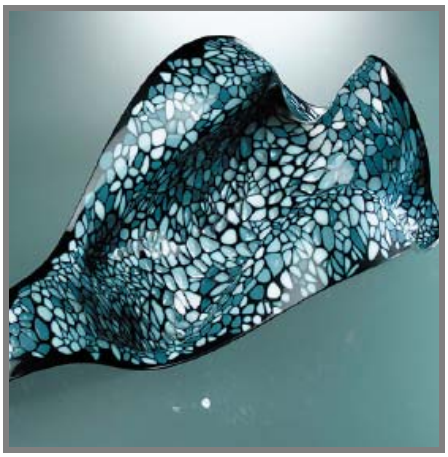
Labeling & Texturing

Application Note

Overview



Texturing:

Texturing is primarily used for visualization, appearance and rendering purposes. Among its other benefits, texturing allows for product differentiation and customization – a highly valued trait in today's market environment. 3D texture applications are used to decorate parts, exhibit a unique appearance or demonstrate a higher value. 3D texture data technologies enable designers to design a texture before manufacturing.

Labeling:

Labeling allows for product recognition to be part of the product design, as well as for a closer resemblance to the end product. Although most commonly applied to consumer goods and consumer electronics, labeling remains extremely popular in most industries because It lets manufacturers strengthen brand identity, as well as providing the user guidance on how to utilize the product. Techniques for labeling vary from painting techniques to backlit display techniques.

Why Connex?

By printing two materials simultaneously, Connex printing systems are able to jet in different gray scaling settings for labeling and texturing. Furthermore, the high quality printing offered by Objet™ printers creates the fine details necessary for labeling and texturing. The unique combination of color scaling differentiation and excellent printing accuracy allows the user to generate texturing and labeling of the highest quality. This is especially important when a product must be displayed in "Gate Reviews" (approval meetings in which product designs are evaluated to determine if they will continue to the next stage in development). Design / R&D managers aim to present in Gate reviews prototypes which closely resemble the end product. Since similar labeling and texturing can be added to prototypes printed on Connex systems, a better visualization and appreciation of the final product is possible.

Tips and Tricks

When working on your CAD design, every element must have a specified shell assigned to it. In addition, when converting that file to a STL file (see "CAD to STL" on the Objet website for further information) convert the file while defining each STL as a part of your assembly. This is done as part of the preparation of your printed model using the Objet Studio™ software. You will then be able to clearly define different shades of gray for labeling the parts. This also enables the selection of elastomeric-like materials for the texturing of other areas. You can also use the Objet Coating function for labeling and texturing. This feature lets you define areas on the model's surface where a certain coating layer is applied. The coating can vary from 0.3mm – 3mm and extracts the existing material so there is no effect on the tolerance.

Reference

- "CAD to STL" – Found on the Objet website
- Case Study Tescoma – Found on the Objet website under Case Studies → Consumer Goods
- Objet Studio Software – Found on the Objet website

Disclaimer

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