

# Thermoplastics in the Kiosk Marketplace

## The Evolution of Kiosks

The market for kiosks continues to grow as the need for efficient self-service convenience finds its way into a wide range of applications. From casual dining, to supermarkets and retail, kiosks are providing consumers with a new way to order, find product information, and pay. How to enhance the shopping experience by using kiosks can be a challenge for retailers.

Early kiosk designs were utilitarian and functional, and made from traditional materials such as metal and fiberglass. These materials often require costly manufacturing, finishing, and assembly steps. As kiosks evolve to incorporate modern design and branding elements that reflect the look and feel of the retail space or dining environment, new material solutions are needed.

## Thermoplastics Provide a Robust Alternative

Thermoplastics offer an alternative solution to fiberglass and sheet metal because they are robust, wear resistant and will not fray, dent, or ding. Parts made from thermoplastics are strong, ductile, and impact resistant, making them a durable solution in nearly any environment. Once formed, the part retains the thermoplastic materials' mechanical properties and durability, decreasing replacement and out-of-service costs.

Thermoplastics are chemical and stain resistant, and can be cleaned without discoloration. Unlike sheet metal, which can corrode over time, thermoplastics have good weatherability characteristics making them ideal for outdoor applications.

Thermoplastics can contribute to lower production and life-cycle costs through:

- Reduced raw material costs
- Improved integration of components
- Reduced part count
- Fewer secondary operations

## Enhanced Design Options with Thermoplastics



Thermoplastics are pressure or vacuum formed over a mold to produce the finished part. The mold is relatively inexpensive compared with injection molding tooling and is available in a fraction of the time it takes to design, produce, and commission other types of tooling. The formed part can be produced with complex geometries and tight tolerances. As part of the forming process, fasteners can be formed into the part, eliminating secondary operations and reducing assembly time.

Available in a wide range of standard colors and finishes, thermoplastics can be custom matched to nearly any color. Since the color of the material is consistent throughout its thickness, scratches and marks are virtually unnoticeable.

Thermoplastics offer increased design freedom through:

- Superior design aesthetics
- Choice of colors, textures, and finishes
- Ability to form complex geometries
- Integration of functions into one part
- No finishing or painting

If you offer kiosk variations with a range of payment options, multiple screen sizes and printer options, thermoformed housings may provide cost savings through reduced component part counts. With thoughtful design, a single master part can be formed, and by altering the secondary machining of cutouts and mounting locations, it can support various kiosk design alternatives. As internal components change and evolve, and new forms of customization are required, the master part will not be obsolete.

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### When to consider Thermoplastics

Thermoplastics are an option for kiosk manufacturing when you are developing a product with:

- Production runs ranging from 10 to 1,500 units
- Short component part lead time
- Larger parts that would require costly injection molding tooling
- The need for improved durability and weatherability
- Improved design aesthetic qualities

### SEKISUI KYDEX

SEKISUI KYDEX offers a range of thermoplastic materials manufactured in nearly any colour to match your design and application. Our designLab® and FSTLab™ are available to help you enhance your designs, ensuring they meet regulatory compliance and safety standards.

For more information on how to convert your design to thermoplastics using our appLab™, or to learn more about SEKISUI KYDEX and our line of KYDEX® and ALLEN® Thermoplastics, contact your local representative or visit us at [www.kydex.com](http://www.kydex.com).