

Hybrid technology with Ticona materials

Enhanced design freedom creates new opportunities

- + New primer technologies enable adhesive bonding of Ticona polymers to other materials
- + Combination of plastic and decorative material opens up completely new design opportunities
- + Functional integration through use of Ticona plastics
- + Production in one operation means high flexibility and cost-efficiency



In hybrid technology based on liquid and film-like primer systems, Ticona polymers can be bonded to a wide variety of materials by outsert molding or in-mold-decoration (IMD) processes.

The IMD process offers new design freedom, including the possibility of producing complex components with additional functional integration. By means of specially tailored primer systems, Ticona plastics can meet component-specific requirements such as chemical resistance and heat stability, as well as regulatory approval criteria (e. g. FDA). They are also suitable for thermal energy recovery without leaving any residue.

In-mold-decoration

The in-mold-decoration (IMD) principle consists of inserting a primer-coated second material, such as a decorative element made from aluminum foil, in an injection mold. The polymer melt is then injected over the primer system to form a complex molding with an adhesive bond to the second material. In addition to purely decorative and surface effects, technical functions can also be integrated with the Ticona plastic.

Possible application fields:

- Automotive interior and under-the-hood applications
- Components for electrical and electronic equipment
- Control elements and control panels for household appliances

Ticona polymers

- Hostaform® POM
- Celanex® PBT
- Fortron® PPS
- Vectra® LCP
- Celstran® LFT
- GUR® UHMW-PE



Possible second materials

- Metals
- Fabrics
- Wood veneers
- Leather
- Glass
- Thermoset decorative films
- Textile materials
- Other flat-surfaced materials

Technical functions

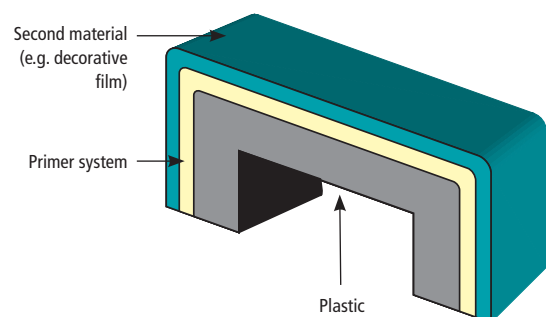
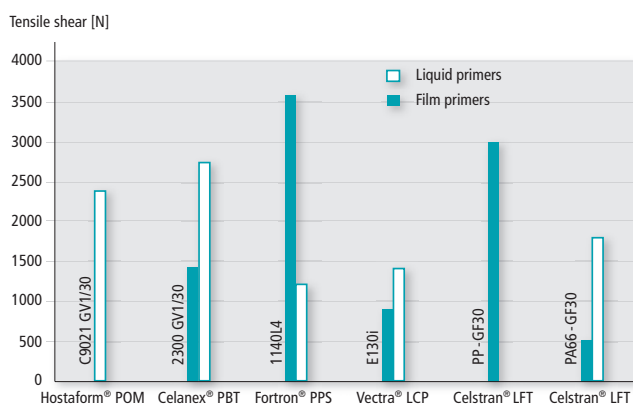
- Fastening
- Force transmission
- Leaktight overmolding
- Electrical or thermal conduction
- Electrical or thermal shielding

Possible surface effects

- Cool touch
- Metallic look
- Scratch-resistant or heat-resistant surfaces
- Textured surfaces with special feel

Tailored primer system solutions are available

Results of tensile shear testing



www.ticona.com · infoservice@ticona.de · Phone +49 (0)69 3051 6299 · Phone +49 (0)180 584 2662* (Germany)

NOTES FOR USERS: The information contained in this publication should not be construed as an agreement or guarantee regarding certain properties of our products. It is the sole responsibility of the user to determine the suitability of a particular material and component design for a specific application. We strongly recommend the user to obtain the latest manufacturers' instructions on the use of the selected materials and to follow these. Any existing industrial property rights must be observed. Except where otherwise noted, all registered trademarks are owned by Ticona or its affiliates.

* 0,14 € / minute + local landline rates