

Application Guide

Identification Labels: Automotive Interiors



Industries:

Automobiles, trucks, busses, etc.

Products:

XF-603, XF-611, XF-670, XF-672

Applications:

- Identification: VIN, serial number
- Safety: Seat belts, car seats, airbags
- Instruction: Tire pressure, tire changing, etc.

Compliance:

REACH and RoHS,
UL 969, UL 94, FMVSS302

Customer Benefits:

- Thermal transfer printable
- Laser markable
- Flame retardant
- Durable topcoats
- Aggressive acrylic pressure sensitive adhesives
- High temperature stability
- Polyester and polyimide options

Industry Needs

Auto, truck and bus makers require information labels for a variety of applications inside the interiors of their vehicles. The information on the labels can be safety alerts (airbags, seat belts, etc.), instructions (tire pressure, tire removal, jacking, etc.) or identification (ID, VIN, etc.). The label materials must have durable top coats that can be either thermal transfer printed or laser ablated and in some cases be able to be auto-applied. They also need to be heat resistant, flame retardant and impervious to the array of harsh fluids and chemicals typical to motor vehicles (gasoline, coolant, windshield washer, oil, etc.). In addition, they must remain firmly affixed to textured plastic and/or metal surfaces, and be legible for the life of the vehicle.

Interior labels are legally required. Their information allows vehicles to be tracked and potentially save lives. The decision as to which label material to use can be critical to the success of the vehicle.



Polyonics Solutions

Polyonics has designed a variety of thermal transfer printable and laser markable label materials to address key automotive interior applications. The materials range from low cost thermal transfer printable (TTP) polyester and high temperature

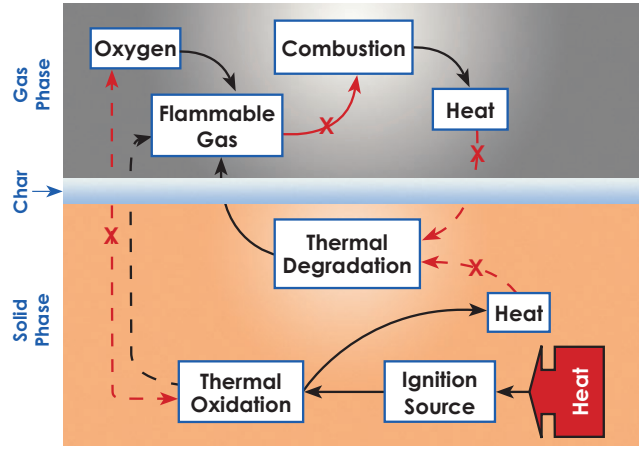
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For more information or to receive samples for evaluation, please contact: info@polyonics.com or 603.352.1415

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polyimide to laser markable (LML) polyimide constructions. Each includes appropriate pressure sensitive adhesives (PSA) to suit the application including low surface energy (LSE) acrylic PSA for use on plastic surfaces. The constructions have been tested to a variety of automotive industry standards including GMW 14573, GM 1621M and FMVSS302 as well as UL969 and UL94.



Polyonics flame retardant label materials are specifically designed using Flame-Gard™ technologies. These combine several chemical and physical mechanisms to create char layers that effectively control heat transfer, oxygen availability, material decomposition and generation of flammable gases to prevent the propagation of fire.

| Label | Film | PSA | Applications | Temperature |
|--------|--------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| XF-603 | 38 μm (1.5 mil) semi-gloss white PI | 28 μm (1.1 mil) acrylic | TTP, flame retardant, auto apply, VTMO and V0 rated, UL94 (file # E338081), UL 969 rated (file # MH 19503 PGJ12), passes FMVSS 302 burn rate test | 100 hrs @ 150°C, 5 min @ 260°C, 90 sec @ 300°C |
| XF-611 | 38 μm (1.5 mil) semi-gloss white PET | 30 μm (1.2 mil) acrylic | TTP, flame retardant, auto apply, VTMO rated, UL94 (file # E338081), UL 969 rated (file # MH 19503 PGJ12), passes FMVSS 302 burn rate test | Range: -40 to 150°C |
| XF-670 | 1.7 mil with black TC | 28 μm (1.1 mil) LSE acrylic | Laser markable, strong bonds to PP and PE plastics, tested to GMW 14573 and GM 1621M, low out gassing per ASTM E595 | 100 hrs @ 125°C 24 hrs @ -70°C 5 min @ -55 to 260°C 90 sec to 300°C |
| XF-672 | 1.7 mil white TC | 28 μm (1.1 mil) LSE acrylic | Laser markable, strong bonds to PP and PE plastics, tested to GMW 14573 and GM 1621M, low out gassing per ASTM E595 | 100 hrs @ 125°C 24 hrs @ -70°C 5 min @ -55 to 260°C 90 sec to 300°C |

POLYONICS AT A GLANCE

Polyonics manufactures high performance polymeric materials for harsh environments. These include printable and laser markable label materials, single and double coated engineered tapes and flexible substrates with highly reflective and printable top coats. Polyonics materials are used by OEMs and converters worldwide. The ultra-thin polyimide, polyester and aluminum materials are designed expressly for high temperatures and harsh environments plus provide flame retardant and ESD properties for electronics, automobile, aerospace and medical components.



XF-670 laser markable label

For more information or to receive samples for evaluation, please contact: info@polyonics.com or 603.352.1415



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