

Films for Specialty Applications

Advanced Film Component Solutions for Medical Devices, Computers, and Shielding

Customers that buy Flexvue™ films for end uses such as hard drives and medical sensors have critical and demanding standards. Flexvue is uniquely suited to provide a broad range of products that are capable of meeting rigorous cleanliness and reliability requirements. Leveraging over 50 years of performance film manufacturing experience, we deliver a broad portfolio of standardized products. However, these same capabilities make us an ideal developmental partner to work with you on challenging customized solutions specific to your needs.

PROVEN SOLUTIONS FOR SPECIALTY APPLICATIONS

Medical Sensors and Devices

For disposable products including medical diagnostics, test strips, and blood glucose monitors, Flexvue offers sputtered gold, palladium, and other precious metals on clear and white opaque polyester films. Produced and slit into narrow widths in environmentally controlled clean rooms, the films provide the accuracy and reliability demanded in the medical field.

Hard Drive and Computer Solutions

Among the many specialty coated films used within desktop and hand held electronic appliances are: Flexvue silicone, low extractable, and non silicone release films used with specialty adhesives and tapes and thermally conductive foams, deep dyed polyester films to identify very small parts such as filters and gaskets, primed polyester films used with silicon chip polishing pads, and sputtered copper used to produce printed circuit boards.

Electroluminescent Lamps

Optically clear “OC” Indium Tin Oxide (ITO) coated polyester films have proven their value for many years in products using EL lamps, including nightlights, watches, automotive dashboards, and various other products. Flexvue OC50 through to OC200 (50 – 200 ohms per square) are commonly used.

EMI/RFI Shielding, ESD, and Infrared Heat Rejection Films

EMI films are engineered with transparent polyester film to give the highest possible optical transmission. Spanning the electrical resistance range of 2.5 to 100 ohms per square, this combination of low surface resistance and high visible light transmission uniquely qualifies these films for use in EMI shielding. Offerings include: ITO for use with lower frequencies, AuARE high transmission gold coatings, silver-based AgHT for shielding at very high frequencies, FM gold film for greater attenuation, and PDP2P silver-based multi-layer coatings for IR control.

► History

Leveraging over 50 years of product development and manufacturing experience, Solutia's specialty films are used in applications such as:

- Medical devices
- Electronic displays
- Touch screen
- Energy products
- Solar control window film

► Capabilities

State of the art, large scale roll-to-roll coating and laminating, vacuum metallizing and sputtering, and deep dyeing capabilities.

► Research and Development

Integrated lab and pilot scale development facilities and R&D staff with more than 150 patents issued.

► Custom Products

Solutia can deliver custom solutions for your specialty film requirements. Our manufacturing capabilities can be adapted to handle unique application needs including coating chemistry and substrate type.

Product Overview

| Product | Features | Attributes | Benefits |
|--|---|--|---|
| TRANSPARENT CONDUCTIVE FILMS | Wide range of resistances | 2.5 - 1000 ohm / square | Adaptable to a wide range of applications and needs |
| | High VLT | > 94% | Provides specific levels of haze, smoothness and VLT as required |
| | Haze options | Haze < 1% - 10% | Improved optics |
| | Invisible ITO | Minimizes or eliminates signs of etching | Creates uniform appearance and hides patterns on touch screens |
| | Neutral color ITO | Neutral to bluish appearance | Eliminates the yellow color on touch screens |
| BARRIER FILMS | Moisture resistant | WVTR performance as low as 10 ⁻² gr/m ² /day with 89% VLT, may be adjusted as needed | Helps prevent corrosion and degradation caused by moisture and oxygen intrusion |
| | Thin film, may be heat-stabilized with UV absorber and / or ITO added | 1 mil (25 microns) thickness | Film is flexible and cost efficient with virtually no shrinkage |
| OPTICALLY CLEAR PRESSURE SENSITIVE ADHESIVES | High optical clarity, permanent or repositionable | Low coat weights, no orange peel or optical distortion | Very high optical quality for underlying components |
| | Wide range of capabilities for toll coating | Solvent or water-based, with mixing, up to 74 inch (1.88m) wide | PSAs may be developed to meet exacting requirements |
| | Clean room coated | To class 1,000 | Essential for demanding electronics applications |
| RELEASE FILMS | Wide range of release levels available | 5 - 500 grams / inch, using solvent based tin, thermally cured and UV-cured silicone | Match requirements of various PSAs |
| | Dependable and proven silicone chemistries | Offers highest level of release consistency, roll-to-roll and run-to-run | Ensures high yields and economies |
| | Non-silicone and fluorosilicone chemistries | For use where silicone is not tolerated and with silicone based materials | Release offered for specific applications |
| | Clean room coatings | 0.5 - 14 mils (12 - 350 microns) | Best base for die cutting, cleanliness |
| DYED FILMS | Wide range of color capabilities | Nominal haze - 1.2%, very color stable in a* and b* spectrums, blocks 98% to 99% of UV radiation (integrated across the UV spectrum) | UV protection, color, glare reduction, and particulate filtration |
| LOW TACK PROTECTIVE MASKING FILMS | Very light, low tack adhesive | Adhesion as low as 0.35 ounces / inch (10gr/cm) | Easily removed with virtually no adhesive transfer, used as a protection, carrier or support film |
| | High visible light transmission | To 87%, haze as low as 3%, on 1.5 or 2 mil base | Improved optics |
| | Clean room coated | No contamination | Essential for demanding electronics applications |
| HARD COATED FILMS | Range of clear to anti-glare PET based films | Haze < 1% to 10%, > 90% VLT, to 4H pencil hardness | May be produced on a "custom" basis as required for the specific application |

Evaluation samples and technical support are available.
 For general information, pricing, and availability, please contact our sales department.
 Telephone: 1-888-273-4567 or 1-314-674-3150 outside U.S.A.
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www.flexvuefilms.com

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