



ARYPHAN®

MOST IMPORTANT PRODUCT FEATURES

- Thickness range: 6 µm - 150 µm
- Colors: yellow and colorless
- Glass temperature: up to 193 °C
- Excellent acoustic properties
- Very good mechanical strength

MATERIAL

ARYPHAN® is cast from polyarylate (PAR) using the solvent casting process. Polyarylate is a high-performance plastic with significantly higher impact strength than other amorphous thermoplastics with comparable heat deflection temperature, even at low temperatures. Depending on the structure of the cast belt, the film can be manufactured with a matte (EM) or glossy (GL) surface. The film is produced in standard thicknesses of 6 µm to 150 µm, additional thicknesses can be offered upon request.

MECHANICAL PROPERTIES

ARYPHAN® has very high tear and tear propagation strength and is break and spitter resistant. Its good mechanical strength is manifested in high tensile strength and elongation at break. ARYPHAN® is valued particularly for its low-temperature toughness in comparison to polycarbonate films. Due to the solvent casting process, the mechanical properties are virtually identical in the longitudinal and lateral directions. ARYPHAN® has very good thermoforming properties.

THERMAL PROPERTIES

ARYPHAN® exhibits a glass transition temperature of up to 193 °C and has a heat deflection temperature of up to 175 °C (at 1.8 MPa).

OPTICAL PROPERTIES

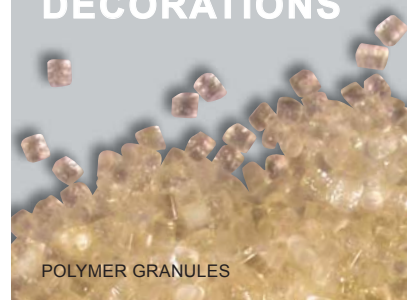
ARYPHAN® absorbs light in the near UV range below 360 nm. In the range of visible light, transmission increases to values around 90 %. Most ARYPHAN® films have a one-sided matte structure, thereby exhibiting optical refraction.



OUR MARKETS

Our broad range of products and ability to realize custom solutions allow us to serve a wide variety of industries and markets:

- DIAGNOSTICS
- ELECTRICS
- ELECTRONICS
- DISPLAYS
- ACOUSTICS
- LABELS
- GRAPHICS
- PRINT
- 3D GLASSES
- OPTICS
- DECORATIONS



ARYPHAN®

ELECTRICAL PROPERTIES

ARYPHAN® exhibits outstanding electrical insulation properties. Due to the very low moisture absorption, they are only marginally influenced by the moisture content of the material.

CHEMICAL PROPERTIES

ARYPHAN® is resistant to oil, grease, benzines, aliphatic hydrocarbons, as well as most alcohols. ARYPHAN® is not resistant to chlorinated hydrocarbons, ketones, aromatic solvents, and alkalis. In these substances, the film will be attacked or will dissolve.

FIRE BEHAVIOR

ARYPHAN® has a molecular structure that gives it flame-retardant properties. Special types even fulfill the VTM-0 standard.

WATER ABSORPTION

Due to its low moisture absorption of approximately 0.2 %, the film retains its dimensions so the film properties are only marginally influenced.

RADIATION BLOCKING

ARYPHAN® absorbs light in the near UV range below 360 nm. This gives the film inherent UV protection and outstanding UVC blocking properties. UV radiation shifts the UV absorption further towards 400 nm, thereby reinforcing its inherent UV protection. This causes slight yellow discoloration of the film. ARYPHAN® is also highly resistant to beta and gamma radiation.

FURTHER PROCESSING

ARYPHAN® is thermoformable and can be coated with common high-vacuum methods. The film can be adhered effectively through the use of selected solvents, solvent-based adhesives, and dispersion adhesives as well as through the hotmelt process.

COMPLIANCES



The compliance section features three circular logos. The top logo is 'RoHS conform' with 'LOFO COMPLIANCE FOR ARYPHAN®' around the perimeter. The middle logo is 'CHINA ROHS CONFORM' with 'LOFO COMPLIANCE FOR ARYPHAN®' around the perimeter and a central 'e' symbol. The bottom logo is 'REACH' with 'LOFO COMPLIANCE FOR ARYPHAN®' around the perimeter.

