

POKALON®

Material

POKALON® is manufactured by solvent casting from polycarbonate without added plasticizer. The film can be made with either a glossy or a matt surface, depending on the surface of the casting belt. A film matt on both sides may be produced by laminating two films each having a single matt side.

Mechanical properties

POKALON® has very high tear initiation and propagation resistance and is resistant to fracture and splintering. Mechanical properties are nearly identical in MD and TD.

Thermal properties

POKALON® withstands temperatures ranging from -40°C to +140°C. The heat distortion temperature according to VDE (0345, p. 96) is 150°C. Special grades having higher temperature resistance are available on request.

Electrical properties

POKALON® has a low dissipation factor which, like its relative permittivity, is only slightly temperature dependent. Insulating properties are very good even at elevated temperatures.

Water absorption

Due to its low water absorption of at most 0.5%, POKALON® is dimensionally stable and its electrical properties are subject to only slight variation.

Optical properties

POKALON® OG grades have no gels, show very high transparency and very low, uniform retardation values.

Chemical properties

POKALON® is resistant to diluted acids, most salts, alcohols, oils, greases, detergents and saturated aliphatic and cycloaliphatic hydrocarbons.

POKALON® has limited resistance to or is soluble in diluted alkalis, ammonia, amines, ketones, esters, aromatic hydrocarbons and methylene chloride.

Flammability

Our flame retardant POKALON® grades F and S are no longer available.

As substitute we can offer our ARYHAN® F (ROHS compliant, UL 94, VTM-0). For more information, please refer to our "Aryphan Info" and the corresponding datasheets.

Bonding and welding

Methylene chloride is ideal for achieving a film/film bond. POKALON® may also be welded by thermal impulse welding.

Thermoforming

Unoriented grades of POKALON® are readily thermoformable at a temperature of approx. 190 °C and a mould temperature of approx. 90 °C. If the film is to be heated very quickly, it is advisable to dry it before use.

Printing and writing

POKALON® can be printed with special inks using various processes. Solvent-based markers and Indian ink can be used to write on POKALON®. The matt side is resistant to erasing and smudging.

Encapsulating and Impregnation

Epoxy resins with an acid anhydride hardener create an especially strong bond with POKALON®. The use of amino hardeners and polyester resins is not recommended.

Suitable impregnating agents are silicone oils, phthalic acid esters and mineral oils with a low aromatics content.

Environment

POKALON® is environmentally neutral. Production scrap and uncontaminated waste are reused in the production process. The solvents used in the production process are recovered and recycled in a closed circuit system. When dumped or incinerated, POKALON® produces no highly toxic or highly corrosive gases.

The entire company is certified to ISO 9001 and 14001.

POKALON® does not comply with BGA (German Federal Health Office) and NDA/FDA recommendations.

Applications

- carrier film for pharmaceutical diagnostic test strips
- ID-cards, driver's licences etc.
- cover sheet for optical storage media
- membranes for loudspeakers, microphones and acoustic transducers e.g. in mobile phones
- electrical insulation of coils, transformers, capacitors etc.
- LCD retardation film
- instrument scales, name plates
- die cut parts

The aforementioned data are given most conscientiously but without any obligation.

Any processing details are provided merely for guidance: it is the user's responsibility to check the suitability of the product for the intended application.