



# LIFOKACAN

LIFOKA™ is a PET film inside protection-system for tinplate. LIFOKACAN: Further Development of the classic organic inside lacquer protection. With LIFOKA™ the complete can (incl. body) is inside protected with a PET film.

## THIS SYSTEM HAS THE FOLLOWING ADVANTAGES:

**CHEMICAL RESISTANT**

**NON POROUS**

**ABRASION RESISTANT**

**FLEXIBLE**

## USAGE MAINLY FOR WATERBASED FILLING GOODS.



We laminate a thin PET (Polyethylenterephthalat) film by using a PUR glue in a laminating machine to a tinplate sheet. The film is non-porous and very elastic what makes this material suitable especially for components (bottoms, rings, lids). Specific cutting devices within the laminating process cut out the margin for the welding seam prior to lamination onto the tinplate and this laminated tinplate is used for bodies just like lacquered sheets. The advantage is a much higher abrasion resistance and a very good chemical resistance, especially in areas with particular mechanical or chemical requirements (e.g. solvent-based woodcare) in which common systems reaching their limit.

## PHYSICO-CHEMICAL RESISTANCE OF PET-FOIL

aldehydes	acetaldehyde formaldehyde	resistant resistant
alcohols	benzyl alcohol cyclohexanol ethanol ethylene glycol glycerol isopropyl alcohol methanol	limited resistant resistant resistant resistant resistant resistant
chlorinated hydrocarbons	carbon tetrachloride trichloroethylene trichloromethane	limited resistant resistant resistant
esters	ethyl acetate	resistant
hydrocarbons aliphatic	hydrocarbons benzene mineral oils phenol toluene xylene	resistant resistant resistant not resistant resistant resistant
alkaline solution	ammonium hydroxide calcium hydroxide sodium hydroxide	not resistant limited resistant not resistant
acids	formic acid (50%) acetic acid hydrofluoric acid (10%; 35%) phosphoric acid (30%; 85%) nitric acid (10%) nitric acid (65%; 100%) hydrochloric acid (10%) hydrochloric acid (30%) sulfuric acid (20%) sulfuric acid (> 80%)	resistant resistant resistant resistant resistant not resistant resistant limited resistant limited resistant not resistant
saline solution	alkaline carbonates bichromates cyanides fluorides	resistant resistant resistant resistant
miscellaneous substances	nitrobenzene water hydrogen peroxide	not resistant resistant resistant
<p>Some phenolic resins can release free phenols or phenol derivatives at elevated temperature or moisture and therefore damage the PETfoil. Some solvents are able to diffuse through the PET-foil and dissolve the underlying adhesive, e.g. ketones, esters, chlorinated hydrocarbons or N-methyl-2-pyrrolidone (NMP).</p>		

The PET-coating is a polymeric material and therefore a diffusion of polar solvents through the foil is possible. The underlying adhesive can be dissolved by certain solvents and the foil itself can lose its adhesion to the tin plate. Special caution is advised for ketones, even though these kinds of solvents are typically not packed in inside lacquered cans.

Overall, due to the countless variations of filling goods and other parameters as e.g. filling temperature, storage temperature or concentration of additives we cannot release our customers from the obligation to check the suitability of our products for the intended purpose with the first use as well as with subsequent modifications of the original purpose or filling material by appropriate testing procedures.

Based on laboratory tests and practical experience, we would be glad to help our customers to find the appropriate packaging for a specific filling good. However, a test with the real filling in the relevant packaging is always recommended and we are glad to help our customers with comparative studies (takes about 6-10 weeks; elevated temperature to simulate longer storage time) if filling material is made available.