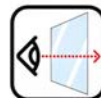


Characteristics of OPS Film

THE RIGHT STUFF

Superior transparency creates an attractive appearance for products. Because the Film is extremely clear, it provides superior transparency. Thus, the Film enhances the beauty of the content, especially for items such as produce, by revealing the product freshness.



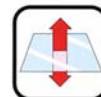
QUALITY

The Film's superior exterior luster, thus stages prestigious and attractive product presentation. Attractiveness of the product at the store will be further improved. In addition, such lustrous quality will enhance beautiful finishing in printing.



BREATHABILITY

Because substances such as oxygen, carbon dioxide gas and moisture vapor permeate well through the Film, it provides delicate protection for produce. The Film enables such products to be displayed at the store with near-harvest-quality freshness.



ENHANCED USAGE & POSSIBILITIES

The Film is well suited for automatic packaging machines due to its superior characteristics for cutting and creasing. The Film provides sufficient quality for various methods of packaging such as easy-open packages.



MULTICOLOR MAGIC

The Film rarely has inconsistency in thickness, and provides a superb flat and smooth surface, for beautiful multicolor printing.



STRENGTH

Due to its stiffness, the Film is well suited for machine-operated processing such as printing and laminating.



NO MORE FOG

The Film is specially processed so that the surface of the Film is not easily fogged with moisture vapor inside the package. This will, in turn, present the product in a more appealing manner.



LESS STATIC

The Film is finished so that it minimizes electrostatic coiling and dust clinging. The working process becomes much smoother.



A variety of characteristics arose from the advanced inflation method.

Ordinary plastic films drastically improve various characteristics such as transparency, luster, stretchability, and impact resistance when inflated. Asahikasei OPS™ Film is biaxially oriented in both vertical and horizontal directions, by utilizing the advanced inflation method, thereby producing extremely superior characteristics. In the following, these characteristics are outlined.

Functional characteristics

- * In comparison to the non-oriented polystyrene film (hereafter referred to as CPS film), the Asahikasei OPS™ Film is superior in tensile strength, stiffness and impact resistance.
- * Although having less elongation than polypropylene and polyester films (hereafter referred to as OPP and PET films respectively), the Asahikasei OPS™ Film is excellent for cutting and creasing during the film processing due to its stiffness.

Optical characteristics

- * Because polystyrene resin has excellent transparency, the Asahikasei OPS™ Film is more transparent than CPS, OPP, and PET films.
- * The Asahikasei OPS™ Film is more lustrous than CPS and OPP films.

Heat related characteristics

- * The Asahikasei OPS™ Film is heat-resistant up to 80°C and cold-resistant to -40°C. Caution must be taken for the duration of the process since rapid shrinkage will occur, starting at around 95°C.
- * Although it is possible to apply heat-sealing such as impulse-sealing, the Film alone is not well suited for heat-sealing due to its weak sealing strength. It is, however, possible to apply excellent heat-sealing once laminated with resin suited for heat-sealing.
- * In perfect combustion, the Film is decomposed into carbon dioxide gas and moisture vapor, and leaves little residue.

Chemical characteristics

- * The Asahikasei OPS™ Film is superior to OPP and PET films in "moisture vapor and gas permeability." It is especially effective in keeping freshness since the Film has extremely higher "moisture vapor permeability" than others.
- * Due to its weakness in anti-solvency, only alcohol solvent can be used, however, the Film tolerates a small amount of toluene and alcohol solvent containing ethyl acetate.
- * While the Film shows excellent chemical tolerance for acid and alkaline chemicals, it has weak tolerance against oleaginous substances.