UFLEX INITIATIVES

DEMAND FOR HIGH BARRIER FILMS IS ON THE RISE

High Barrier Polymeric Films are considered to be the back-bone of Flexible Packaging. Film manufacturing companies world over are investing considerably towards R&D for enhancing barrier properties of the substrates. There are various ways in which barrier properties of films/substrates can be enhanced. These include altering the master batch formula; metallization; co-extrusion with polymers; application of coatings of PVOH, PVDC; compounding of nano-particles into polymer matrix to form nano-composites among several others.

Amidst a growing clamor for sustainability, film manufactures have to strike the delicate balance between down-gauging/ light weighting and reduction at source etc. simultaneously not compromising upon the barrier properties of the substrate.

Some pivotal points that should be noted about the growth of High Barrier Films are:

(a) The ever increasing demand for high shelf-life of food product by consumers with less time and more disposable income at hand is giving a boost to the demand of high barrier films;

(b) Various sustainably viable barrier coatings are being used on transparent films that do not occult transparency of the substrate. Ideally aluminium foil poses nearly 100% barrier for oxygen and water vapour but since it is opaque it blocks the transparency of the laminated pouch. Transparent packaging that does not compromise upon the barrier properties is much sought after in the contemporary times;

(c) Next generation polymer nanocomposites are being engineered to further optimize the barrier properties of packaging films that can add immense value to the ensuing laminate structure.

(d) Future growth is anticipated for several developing cutting edge barrier technologies, including Besela barrier film technologies.According to the new Smithers Pira Report ‘The Future of High Barrier Packaging Films to 2021’ the global market of such films is poised to grow at an annual rate of 4.6% between 2016-2021 to reach 2.33 million tons.
India’s largest multinational flexible packaging materials and Solution Company has carved a niche for itself by engineering several down gauges polymeric films that are extremely efficient in terms of barrier properties. The demand for high barrier films manufactured by Uflex is gaining momentum across the globe.

Two very recent film developments by Flex Films-Global Film Manufacturing Arm of Uflex Limited are:

Super Barrier Polyester Film, FLEXPETTM F-PGB-12

This 12 micron Bi-axially Oriented Polyethylene Terephthalate (BOPET) film owing to a specially modified surface treatment (on one side) offers very high barrier to oxygen. The other side of the film can be corona treated or left untreated as per the requirements of the convertor. The Oxygen Transmission Rate (O.T.R) of this film is < 6 cm3/m2/day at 23 degrees Celsius & 0% RH. A big advantage with this film is the fact that it does not require any coating or co-extrusion of Polyvinylidene Chloride (PVDC) or Ethylene Vinyl alcohol (EVOH) for enhancing barrier properties.

9.5 micron speciality ALOx polyester film, FLEXALOxPROTECTTM F-PGX

This happens to be the thinnest PET ALOx film available globally. Despite being the leanest, the 9.5 micron ALOx polyester film exhibits excellent barrier for oxygen and water vapor as W.V.T.R (gm/m2/day) and O.T.R (cc/m2/day) are both < 1.0. No player other than Uflex offers such a thin PET ALOx speciality film with such superior barrier properties.