

Science Based Packaging Solutions with

DuPont™ Nucrel® AE



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DuPont™ Nucrel® AE Nucrel® AE is an advanced terpolymer designed to process polyethylene resins used in extrusion lamination and coating. It enables packaging manufacturers to run production lines at higher speed.



Issue

India's rapidly growing economy is providing unprecedented opportunities to FMCG brands active in the packaged food and beverage industry. Rural India is driving the high growth in the demand of packaged food.

However, to expand market share, these brands need to broaden distribution reach and increase the product shelf life, while retaining the freshness of the product.

This entails designing well designed packaging solutions given the supply chain and the distribution infrastructure in markets with low penetration.

Challenge

A high proportion of the existing packaging used by FMCGs is based on Adhesive Lamination Technology. When handled by retailers, more often by 2nd and 3rd tier outlets (In the form of a string of packs put over a small rope, exposed to bright sunlight), this technology poses potential risks that would make the packs brittle, ultimately compromising the quality of the packaged product (e.g. less crispy, damp due to moisture etc). Hence, the FMCG companies would run the risk of their products getting rejected by the end consumers due to packaging issues. A new packaging technology was required to avoid these risks for end users.

In addition, co-packers and suppliers of packaging material were also required to ramp up their capacities to meet the growing demand for packaging materials. The line speeds under the existing technology were rather slow and increasing capacity would incur greater investment.

On the other hand, if the line speed was increased for manufacturing, the product could be exposed to the risk of losing its integrity and batches of the product might go bad, ultimately resulting in losses both for packaging manufacturers and FMCG companies.

Solution

DuPont India assessed the problem and introduced a new resin technology to the packaging industry. The new technology used extrusion lamination to replace adhesive lamination. The product offered to the packaging manufacturers was Nucrel® AE, an advanced terpolymer designed to process polyethylene resins.

Extrusion lamination is less prone to failures when compared with adhesive lamination. The product integrity and freshness are better retained along the distribution chain. It also enables co-packers and packaging suppliers to operate their lines at higher speeds and allow them to produce more packaging materials with almost negligible investments in any additional infrastructure.

Benefit

Nucrel® AE offers multiple benefits to packaging manufacturers and FMCG companies

- Better quality packaging materials for FMCG companies
- More smooth operations on packaging lines
- Lower risk of packaging failure
- Increased shelf life
- All benefits achieved at no additional infrastructure cost to packaging manufacturers

