

Science Based Packaging Solutions

With DuPont™ Selar®

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DuPont Selar® PA 3426 is a science based amorphous nylon (polyamide) resin that develops sustainable packaging solutions for perishable products like wheat flour.



Issue

Wheat Flour (Atta) is a staple diet for majority of Indians. Traditionally, Indian households consumed freshly grounded wheat flour from local mills, which required time, effort and was exposed to the risk of contamination and adulteration.

However, industry introduced PET Poly structure bags to eliminate the risks of contamination and adulteration, but soon realized that the bags got torn easily along the stitch & cut easily with sharp objects leaving the flour deteriorate due to moisture and pests. Apart from this the PET Poly structure material wasn't sustainable as it cannot be easily recycled.

Challenge

Almost 15% of wheat flour goes to waste due to inadequate packaging solutions. The packaged wheat flour industry suffers huge losses due to low shelf life and lack of sustainable options.

Solution

DuPont India offered Selar® PA 3426, an amorphous nylon (polyamide) resin to develop sustainable packaging solutions for perishable products like wheat flour.

DuPont Selar® PA 3426 exhibits superior transparency, good barrier properties to gases, water, solvents and essential oils and high temperature structural properties, which make it suitable for consideration in a number of applications.

The structure of Nylon and PE is used instead of the PET poly structure to tackle wastage especially in bulk packaging giving the bag 15% more strength. Apart from this, DuPont Selar® PA 3426 packaging solutions are highly sustainable as Nylon PE can be easily recycled using Fusabond.

Today, India's leading packaged wheat flour brands like Aashirvaad (ITC), Annapurna (HUL), Pillsbury (General Mills) and Shakti Bhog are trusting DuPont Selar® PA 3426 enabled packaging solutions to achieve shunya wastage while capturing 80% of the Indian market.

Benefit

DuPont Selar® PA 3426 barrier resin can be utilized in both flexible and rigid packaging structures and is characterized by very good gas O₂, CO₂ and moisture barrier. Furthermore, Selar® PA is unique in that its gas barrier improves with increasing relative humidity. It has excellent physical properties, high temperature resistance and excellent optical properties desirable in a structural resin.

