



PIB and Stretch film:

Combining resistance with stretching and tacking

Braskem, South America's top PIB manufacturer and active in Brazil for over 30 years, counts with all its experience and technology to produce Braskem PIB.

Obtained by polymerization of an isobutene rich stream, Braskem's PIB is an excellent tacking agent: a clear and transparent, chemically stable liquid that is resistant to oxidation from light and temperature, hydrophobic and impermeable to gas and steam.

Properties

Adding 3%–5% of Braskem PIB grants superb properties to the stretching process and, therefore, to polyethylene film (LLDPE). These include:

Resistance to tension

Excellent stretching

High degree of tack and adhesion, even after stretching

Resistance to puncture and tear

High gloss

Meets the requirements for usage involving indirect contact with food



Adhesion and tack

Braskem PIB permeates through the film's layers as a result of time and temperature, which grants the film its tack. The main factors that impact on achieving the tack are:

The polymer's (LLDPE's) molecular structure

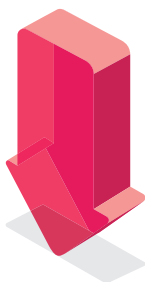
Crystallinity

Orientation

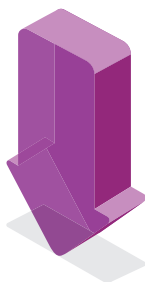
The lower the crystallinity and orientation the polyethylene has, the greater the PIB migration and, consequently, the higher the tack.



tack



crystallinity



orientation

Stretch film grades

PIB	Viscosity cSt at 100°C	Average Molecular Weight
24	200 - 240	940
28	260 - 320	1050
32	640 - 720	1300