Advantages of EVA Interlayer Film Compared to PVB Interlayer Film

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EVA Interlayer Film and PVB Interlayer Film are both used to make safety laminated glass. PVB Interlayer Films have been used to make laminated glass far before EVA Interlayer Films have been used to make laminated glass. Laminated glass is popularly used as safety glass to protect people and property.

_PVB Introduction:_

PVB stands for Polyvinyl butyral. It is made of polyvinyl alcohol by reaction with butyraldehyde. The major application is laminated safety glass for architectural building windows and automobile windshields. (learn more go to wiki: http://en.wikipedia.org/wiki/Polyvinyl_butyral).

_What's Wrong with PVB:_

However, PVB Interlayer Film is very sensitive to moisture, which makes it difficult to store and process. It requires high standard of processing condition to care about humidity. So EVA Interlayer Film is emerging and playing a more and more important roll in laminated glass and decorative art glass world.

_EVA Introduction:_

EVA is the copolymer of ethylene and vinyl acetate. The weight percent vinyl acetate usually varies from 10 to 40%, with the remainder being ethylene. (learn more go to wiki: http://en.wikipedia.org/wiki/Ethylene-Vinyl_Acetate)
Architectural EVA (Ethylene-vinyl acetate) Interlayer Film can be used in Vertical Safety Glass, Sloped Safety Glass and Overhead Safety Glass. Architectural EVA Interlayer Film owns high-performance safety function properties, reliable and long-time weather resistance. The standard thickness of Architectural EVA Interlayer Film is 0.38mm and 0.76mm. Architectural EVA Interlayer Film past the safety standard of the safety laminated glass with PVB (Polyvinyl butyral) Interlayer Film in China.

+EVA Interlayer Film has Great Properties

- Great Light Transmission, ≈ 92%
- Almost Totally UV Blocked, ≈ 99%
- Long Weather Resistance, ≈ 15 years
- Great Tensile Strength, ≈ 21 Mpa
- Good Adhesive Strength, ≈ 50N/cm
- Qualified Impact Resistance As PVB Does
- Qualified Moisture Resistance As PVB Does

+Advantage of Making Laminated Glass with EVA Film Compared with PVB Film

1. EVA Interlayer Film is Less Sensitive of Moisture. And EVA Interlayer Film can be processed in an common rood condition.
2. EVA Interlayer Film is better at mobility when melted and better for laminating with papers, PET, silk, wire net, fabric.
3-EVA Film is good at aging resistance, the aging-resistance can be more than 15 years.
4-EVA Film is stronger in adhesive with various materials, PMMA, PET, Metals, Plastic etc.
5-EVA glass laminating line is easier and less cost to install. PVB glass laminating is mainly working in a big autoclave, it's not suitable for the company make small quantity creatively designed artistic laminated glass for special requirement of different customers. PVB glass laminating machine is a large investment which would be a barrier for the new company who are interested in laminating glass world.

Can EVA Replace PVB?
Prove 1: In China National Safety Laminated Glass Standard (2009 Edition), the Glass Lamination Ethylene-vinyl acetate EVA Interlayer Film is recognized as a safety interlayer film for safety laminated glass, only if the Glass Lamination Ethylene-vinyl acetate EVA Interlayer Film past the same tests as PVB interlayer film.

Prove 2: And Glass Lamination Ethylene-vinyl acetate EVA Interlayer Film can past the tests which are required for laminated glass with PVB interlayer film, like High Temperature Resistance Test, Radiation Resistance Test, Humidity Resistance Test, Ball Impact Peeling Test, Shot-bag Impact Test etc.