Permanent Antistatic for PE Multilayer Films

Consistent, long-term static control for PE multilayer films

In many PE multilayer film applications, static buildup leads to dust attraction, handling issues, and inconsistent processing conditions. Traditional antistatic solutions depend on migration and ambient humidity, resulting in unstable performance over time.

ST8832PE EU introduces a permanent antistatic approach - delivering stable, long-term static control directly from within the polymer structure, without reliance on environmental conditions.

Key Advantages

Using permanent antistatic in multilayer PE structures offers technical and operational benefits:

- **Contamination-Free:** Reduced dust attraction supports cleaner production lines and minimizes contamination risks.
- **Long-Term Stability:** Maintains consistent surface resistivity over time, supporting stable antistatic performance even in long-term use & low humidity.
- **Improved Process Efficiency:** Reduced "dust attraction" during the blowing or casting process, leading to higher yields and cleaner production environments.
- **Surface Quality:** No blooming, no greasy surface (blooming), and no impact on printing, lamination, or heat sealing.

Applications

Electronics Packaging

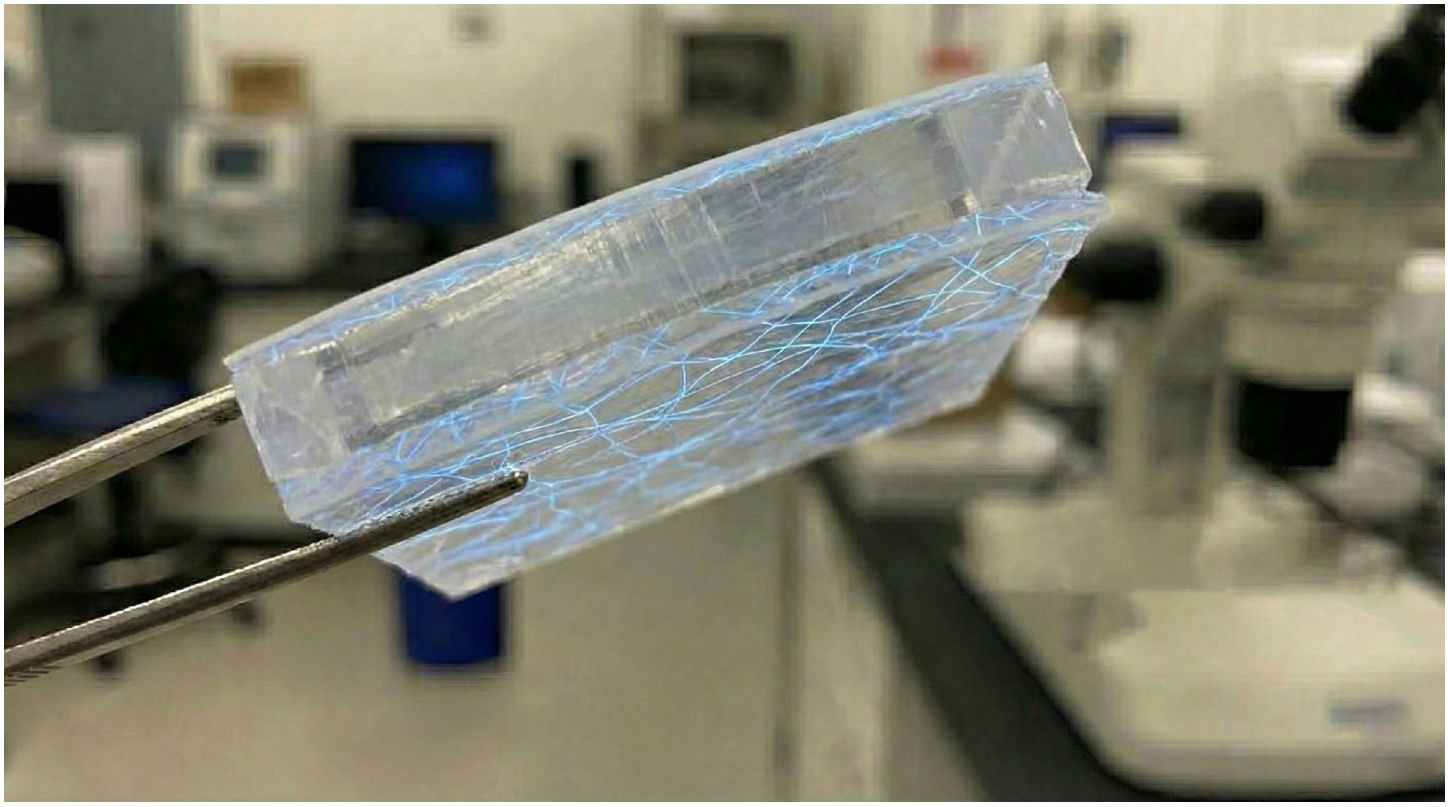
Protective films, liners, and bags for sensitive electronic components.

Industrial Liners

Packaging for powders or materials where static discharge presents safety risks.

Cleanroom Packaging

Films and consumables used in controlled and low-humidity environments.



Multilayer film: Permanent antistatic applied only on skin layers

How Permanent Antistatic Technology Works

Permanent antistatic technology delivers static control through integration within the PE multilayer structure. Instead of relying on surface activity, the antistatic functionality is created by an interconnected conductive network formed inside the PE layers. This internal structure enables stable antistatic performance without dependence on surface migration.

This built-in structure provides:

- Humidity-independent performance - Effective in both low-humidity and normal-humidity conditions.
- Stability over time - Antistatic functionality remains consistent throughout the product lifecycle.
- Immediately effective - Antistatic performance available directly after processing.

Supporting Sustainability Goals

- **Extended Shelf Life:** By maintaining properties indefinitely, these films prevent premature product disposal due to "expired" antistatic protection.
- **Recyclability:** Designed for use within standard PE recycling streams (LDPE/LLDPE).
- **Resource Efficiency:** Enables targeted use within multilayer structures, focusing on performance where it is needed.