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4.5Mic BOPET film clear transparent , unprinting & uncoating (for priting and laminating) ,

4.5微米 BOPET 薄膜（未印刷未涂布）

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APIG-PDS-BPE-008-2026	**Rev. 1.0**	**2026-11-07**	**Product Data Sheet / 产品规格书**

Lamination film PET, 4.5μm, supply to printing and lamination converters.

4.5微米透明 BOPET 聚酯薄膜，未印刷未涂布，用于印刷与覆膜基材

3. PRODUCT DESCRIPTION 产品说明

4.5Mic BOPET film clear transparent , unprinting & uncoating (for printing and laminating)

4.5微米透明 BOPET 聚酯薄膜，未印刷、未涂布状态，是印刷与覆膜工序的基材。

The 4.5-Micron (4.5um) clear, transparent BOPET film in its "unprinted and uncoated" state isthe rawest form of high-performance polyester substrate. In the industry, this is often referredto as "Plain Base Film" or "Primary Film." When used specifically for printing andlaminating, this ultra-thin gauge serves as a high-clarity carrier that allows the graphics of thesubstrate beneath it to show through with maximum brilliance.

可用于柔版与凹版印刷、复合基材、条码带基膜，热封与电晕处理可选。厚度公差控制稳定，适合高速印刷走卷。供印刷厂与覆膜加工厂使用。

1. Technical Profile: The "Plain" Base FilmUnlike TTR-grade film (which may have back-coatings) or Metallized film (which has analuminum layer), the Clear/Transparent version focuses on optical purity and surface energy.

2. Why Use "Clear & Uncoated" 4.5um for Lamination?Using a plain 4.5jum film instead of a 12um film or a pre-coated film offers specific industrialadvantages:

A. The "Invisible" Protective ShieldBecause the film is so thin (4.5pm), it is nearly invisible once laminated to paper or cardstock.It provides a high-gloss finish and scratch resistance without the bulk or "plastic feel" of

thicker films.

B. Optimal Thermal Conductivity

In "Thermal Lamination" (where the film is bonded using heat and a thin glue layer), the 4.5umthickness allows heat to pass through almost instantly. This enables faster line speeds onlamination machines compared to thicker substrates.

C. Superior Yield (Area Coverage)

This is the strongest commercial argument.

· 12m PET:Yields ≈ 60 m2/kg.

· 4.5um PET:Yields ≈ 158 m2/kg.

Result: You cover 2.6 times more area with the same weight of plastic, significantlylowering the "cost per square meter."

3. Application Workflow: Printing & Lamination

When a factory buys "Clear Uncoated" 4.5jum film, the process typically follows these steps:1. Reverse Printing (Optional): The film is printed on the "inside" (the side that will beglued). This protects the ink from scratches because it is sandwiched between the filmand the paper.

2. Adhesive Coating: A lamination adhesive (solvent-based or solvent-less) is applied to thetreated side of the 4.5um PET.

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3. Nip Rolling (The Lamination): The PET film and the target substrate (e.g., printedcardboard) are pressed together between heated rollers.

4. Curing: The composite is left to dry or cure, creating a permanent bond.

4. Key Performance Keywords for This GradeIf you are sourcing or selling this specific "Clear & Uncoated" grade, use these terms to definethe quality:

Optical Grade: Implies the film is free of "gel" or "fish-eyes" that would ruin the look of aprinted box.

Slip Level: "Medium Slip" is usually preferred so the film can be rewound easily withoutsticking to itself (blocking).

Antistatic Properties: Plain film can be very static-prone; specify "Anti-static treated" ifusing high-speed automatic feeders.

Shrinkage Control: Crucial for lamination; if the film shrinks too much in the dryingtunnel, the final laminated product will "curl."

5. Typical End-Use Products

· Luxury Food Packaging: Glossy boxes for chocolates or tea.

Book Covers & Magazines: High-end dust jackets.

Cosmetic Cartons: Providing a premium, wipe-clean surface.

Security/Identity Threads: Slit into very narrow strips and embedded into paper.

Would you like me to prepare a "Yield Comparison Chart" for 4.5jm vs. 6jm vs. 12um?This is often the most effective tool for convincing a lamination plant to switch to the thinner

4.5um grade.

4. COMMERCIAL TERMS 商务条款

进口BOPP电容膜基膜-光膜

进口BOPP 电容膜光膜 2.0-3.0微米

BOPP电容膜 聚丙烯薄膜电容膜由于具有无极性、绝缘阻抗高、频率响应宽广、介质损失小等优点，因此，大量应用于交流电机、家用电器、电力电容器等领域，是BOPP薄膜类的顶端产品。据不完全统计，国内有20余家电容膜生产商，绝大部分是采用专用设备生产，有些则是改造生产BOPP包装印刷膜的设备生产的。

生产线大多从德国布鲁克纳公司引进，薄膜宽度从3.2m扩展到5.2m，加工速度从150m/min提高到300 m/min，厚度已降至3 μm，品种从原有的金属化膜和粗化膜，升级到耐高温电容膜。与普通薄膜相比，其弹性模量增加40%以上，纵向热收缩率降低0.8%，介电强度增大50V，用其制备的电容器的耐压性和耐候性大幅提高。

5. HS CODE & REMARKS 海关编码与备注

Item 项目 Value 内容	
HS Code 海关编码	3920620000
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