



PET PHYSICAL FOAMING

PET物理发泡

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PET物理发泡 PET physical foaming

PET发泡是一种聚对苯二甲酸乙二醇酯（Polyethylene Terephthalate）泡沫材料，它是通过将PET树脂进行物理发泡处理制成的。PET发泡材料具有轻质、高强、耐化学腐蚀、隔热、隔音等优点，广泛应用于包装、建筑、汽车、电子等领域。

PET foaming is a kind of polyethylene terephthalate foam material, which is made by physical foaming treatment of PET modified resin. PET foam materials have the advantages of lightweight, high strength, chemical corrosion resistance, thermal insulation, sound insulation, etc., and are widely used in packaging, construction, automotive, electronics and other fields.



PET发泡材料的主要应用领域包括 The main application areas of PET foam materials include

包装：用于食品、饮料、化妆品等产品的包装，具有良好的保护性能和美观性。

Packaging: Used for packaging products such as food, beverages, cosmetics, etc., with good protective properties and aesthetics.

建筑：用于建筑外墙、内墙、地面、天花板等部位的保温、隔热、隔音材料。

Architecture: Used as insulation, heat insulation, and sound insulation materials for exterior walls, interior walls, floors, ceilings, and other parts of buildings.

汽车：用于汽车内饰、座椅、车门等部位的减震、隔音材料。

Automobile: Used as a shock-absorbing and soundproof material for car interiors, seats, doors, and other parts.

电子：用于电子设备、家用电器等产品的缓冲、防震包装材料。

Electronics: Used as cushioning and shock-absorbing packaging materials for electronic devices, household appliances, and other products.

风电领域：作为结构芯材，提高了耐热温度，减轻了叶片重量。

In the field of wind power: as a structural core material, it increases the heat resistance temperature and reduces the weight of blades.

无人机制造：满足轻质要求，提升有效载荷能力和动态性能。

Drone manufacturing: meeting lightweight requirements, improving payload capacity and dynamic performance.

船舶工业：具有阻燃、低烟、无毒性能，用于船体内饰墙板或结构性材料。

Shipbuilding industry: It has flame retardant, low smoke, and non-toxic properties, and is used for ship interior wall panels or structural materials.

其他：还可用于广告展示、模型制作、声学、光学等领域。

Other: It can also be used in advertising display, model production, acoustics, optics and other fields.



挤出发泡原理 Extrusion foaming principle

将改性的PET加入挤出机中进行熔融，使用超临界二氧化碳（sc-CO₂）辅助挤出工艺完成气体扩散。挤出发泡由于连续发泡的优势，方便工业界进行大规模地、快速地生产聚合物发泡材料。

Modified PET is added to the extruder for melting, and supercritical carbon dioxide (sc-CO₂) is used to assist in the extrusion process to complete gas diffusion. Due to the advantages of continuous foaming, extrusion foaming facilitates the industrial production of polymer foam materials on a large scale and quickly.



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