

## 聚苯乙烯 (PS)

### Polystyrene (PS)

聚苯乙烯是指苯乙烯单体均聚或与其它单体共聚而制得的合成树脂。其均聚物分子结构中其主链为饱和碳链，侧基为苯环，是一种非结晶性的线型聚合物。无色、透明、质硬、刚性好、易于着色、耐化学性能好，具有优异的电绝缘性能和低吸湿性。易于成型加工，流动性良好，可以采用注塑、挤出、模压、真空和发泡成型等方法制成各种制品，成型过程中制品尺寸稳定性好、收缩率低，成型周期短。

Polystyrene (PS), is a synthetic resin made by homopolymerization of styrene monomers or with other comonomers. In the molecular structure of homopolymer, the main chain is a saturated carbon chain with benzene rings as the lateral group. The resin is a non-crystalline linear polymer, which is colorless, transparent, hard, easy to be dyed and resistant to chemical solutions. It has excellent electrical insulation property and low hygroscopicity. It is easy to mold and has good fluidity. It can be made into a variety of products through injection molding, extrusion, compression molding, vacuum molding and foaming. The products have stable dimensions and low shrinkage during molding and the molding term is short.

#### 主要用途

中国石化可生产通用级聚苯乙烯 (GPPS) 和高抗冲聚苯乙烯 (HIPS)，广泛用于汽车、电器、器械部件、建筑、医疗等领域。通用级聚苯乙烯 (GPPS) 可用于制作日用品、电气仪表外壳、玩具、灯具、化妆品容器、室内外装饰品、光学零件 (如三棱镜、透镜)、车灯、电讯配件、电频电容器薄膜、高频绝缘材料、波导管、化工容器、结构泡沫制品等。高抗冲级聚苯乙烯 (HIPS) 可用于制作家电产品外壳、冰箱内衬、板材、电器用品、仪器仪表配件、电视机、收录机、电话机壳体、文教用品、玩具、包装容器、日用品、餐具等。

#### Applications

Sinopec is able to produce general-purpose PS (GPPS) and high-impact PS (HIPS). These resins are widely used in automobiles, electronic and electrical appliances, apparatus parts, buildings, medical care, etc. GPPS can be used to make daily necessities, electrical instrument shells, toys, lamps, cosmetic containers, decorations, optical parts (such as triangular prisms and lens), auto headlights, telecom accessories, capacitor films, high-frequency insulating materials, waveguide tubes, chemical vessels, structural foam products, etc. HIPS can be used to make shells of electrical household appliances, refrigerator lining, plates, TV sets, recorders, telephone body cases, stationary, toys, packaging vessels, daily necessities, dishware, etc.

#### 主要生产企业及工艺列表

##### Manufacturers and Processes

生产企业 Manufacturers	所在地 Locations	产能 (万吨/年) Design Capacity (10,000 Tons/a)	工艺技术 Processes	企业认证 Certifications	
				质量管理体系 Quality	HSE管理体系 HSE
扬子石化-巴斯夫有限责任公司 BASF-YPC Company Limited	南京 Nanjing	20	德国BASF专利技术本体法 Germany BASF Bulk Process	ISO9001	GB/T 9001-2000
广州分公司 Guangzhou Petrochemical	广州 Guangzhou	5	美国Fina公司连续本体工艺 U.S. Fina Company Continuous Bulk Process	ISO9001	GB/T 9001-2000
湛江新中美化工有限公司	湛江 Zhanjiang	10	美国Fina公司连续本体工艺 U.S. Fina Company Continuous Bulk Process	ISO9001	GB/T 9001-2000