

INJECTION

注塑成型加工参考资料如下:

注塑机: 大多数聚烯烃系能使用的注塑机均能使用 压缩比: >2.0以上
For Injection molding refernces (most olefin plastic machine can be used)

Compression ratio: 2.0 and higher

注塑机料管温度 Cylinder Temperatures:

进料段 Feed Zone: 165-175°C

中间段 Center Zone: 175-185°C

出料前段 Front Zone: 185-195°C

注塑口 Nozzle: 180-190°C

模温 Mold Temperature: 40~50°C

注塑压力 Injection Pressure: 35-40 kg/cm²

注塑速度 Injection rate: 适当/Moderate

保压时间 Hold Time: 5 sec.

螺杆速度 Screw Speed: 中到高速/Medium to high

背压 Back Pressure: 5 kg/cm²

循环时间 Cycle Time: 15~20 sec.

(以2mm厚度以下物件/Goods material thickness under 2mm)

CONDITIONS

请注意硬度较低的规格可使用较低的注塑温度:

正确的熔融温度为160°C~200°C, 勿超过220°C.

Please maintain the material melt temp. around 160°C to 200°C during processing, but not exceeding 220°C.

EMPILON 优能胶

500 SERIES

GENERAL PURPOSE NORMAL GRADE



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GENERAL PURPOSE NORMAL GRADE

EMPILON® 500 series compound contains an average Tensile Strength property. EMPILON® 500 series can be applied in many fields of use, such as: hand grips、household goods、sporting goods、stationary、toys etc. Styrenic Block Copolymer is the main content of this 500 series compound, its hardness range is from Shore A 29 ~ Shore D 53 They can be processed by ordinary plastic Injection machinery、extrusion or calendaring etc.

EMPILON® 500 series compound are non-toxic and free of Pb、Cd、Hg、Cr⁶⁺、Sb、As、Ba、Se、halogen and DOP plasticizer, they also comply with the directive of Restriction of the use of certain Hazardous Substance in electrical and electronic equipment (RoHS 2002/95/EC) and SONY SS-00259 that prohibit products that contain Pb.Cd.Hg.Cr⁶⁺.PBB.PBDE etc. They are 100% recyclable and comply with the directive of Waste Electrical and Electronic Equipment (WEEE 2002/95/EC).

EMPILON® 500 series compound retain good mechanical properties after solvent resistance testing and do not hydrolyze in water. They need 80°C~90°C dehumidified hot air at least 2 hours before any molding process and need to be continually dried during operation. For coloring, please select color master batch based on PE or EVA material except for PVC. Higher screw speed and backpressure are needed for better colorant dispersion.

500 SERIES

泛用一般级

EMPILON® 500系列是可以广泛应用于要求中度抗张功能的一般产品(如工具握把、日用品、运动用品、文具玩具...等): 它是以 Styrenic Block Copolymer为主的掺配材料, 硬度范围在Shore A 29 ~ Shore D 53之间, 可以用注塑(射出)、挤出、压延...等加工方式加工。

EMPILON® 500系列产品为无毒性材料, 不含八大重金属、卤素、DOP可塑剂...等有害物质, 是100%可回收的环保材料。可通过欧盟电子及电器设备废弃物处理法(WEEE)及电子资讯产品禁用化学物质法令(RoHS)规范、并符合SONY SS-00259环保要求; 另外在耐化学药品性、耐水解性能也佳。

EMPILON® 500系列产品, 在加工前请先以80°C~90°C热风干燥至少2小时以上, 以便达到最佳加工状态, 欲将本系列产品染色时, 请选择以PE或EVA为基材之色母, 切勿使用以PVC为基材者; 另外加工时请采用较高的螺杆转速和较高的背压, 才能让着色剂达到较好的分散效果。

EMPILON® 500 SERIES PHYSICAL PROPERTIES

	METHOD 测试方法	UNIT 单位	530	545	555	560	570	590	598	
比重 Specific gravity	ASTM D792		1.10	1.10	1.10	1.10	1.10	1.10	1.10	
硬度 Hardness	ASTM D2240	10Sec. Shore	29A	46A	55A	61A	73A	36D	53D	
抗张强度 Tensile strength	ASTM D412	kgf/cm ²	37	37	43	45	59	66	153	
300%抗张强度 300%Tensile strength	ASTM D412	kgf/cm ²	10	21	25	29	36	40	123	
伸长率 Elongation at break	ASTM D412	%	480	360	360	360	360	400	540	
流动指数 Melt index	ASTM D1238	g/10min	E18	E11	E11	E11	E11	G23	G29	
压缩变形 Compression set	ASTM D359 (23°C /70hrs)	%	53	36	40	55	24	68	91	
脆化温度 Brittle temperature	估计值 (estimate)	°C	-55	-55	-55	-55	-55	-55	-55	
收缩率(参考用) Shrinkage (reference only)	平行 (machine direction)	%	1.2	1.0	0.8	0.7	0.4	0.5	0.6	
	垂直 (transverse direction)	%	1.6	1.2	1.5	1.2	0.9	1.2	0.7	
热老化 Thermal aging resistance	硬度变化 Hardness change	shore	46A	29A	25A	17A	11A	7D	9D	
	抗张变化率 Tensile strength percentage change	ASTM D573 (125 °C *168hrs)	%	60	75	47	-18	-4	-4	1
	伸长变化率 Elongation at Break percentage change		%	-89	-76	-89	-50	-45	-22	-99

* 以上数据由和泰实验室提供

* Data is provided by HOTAL laboratory.

* 流动指数: E表示为190°C/2.16kg, G表示为200°C/5kg测试条件。

* Melt Index :

Condition	E	G
Temperature(°C)	190	200
Loading(kg)	2.16	5