

Smoothblend®

Colour Image Plastic Compound Sdn Bhd (Co.No. 527104-T)



Plastic Technologies Enlighten Life



Wear Resistant Compounds

耐磨损改性塑料

Smoothblend® wear resistant compound offers superb lubricity by incorporating PTFE, Silicone and/or aramid fiber for applications demanding stringent wear resistant properties such as mechanical gears and moving mechanical parts. Smoothblend® compound is also formulated to meet stringent mechanical and thermal properties by incorporating reinforcing and/or mineral fillers. Smoothblend® compounds are made from engineering thermoplastics such as POM, PC, PA6, PA6/6, PPO etc.

This compounds help eliminate tedious and time consuming jobs relating to frequent physical external surface lubrication of machine and equipment moving components which results in highly durable and hassle free performance. Smoothblend® can also be formulated to be acid and corrosion resistance which makes it a far better alternative to metals.

Smoothblend®改性塑料是在树脂中均匀混合聚四氟乙烯、硅树脂、石墨、二硫化钼等其中的一种或几种复配以提供卓越的耐磨和内润滑性能。我们的工程师还可以在再混合玻璃纤维和矿物填料已达到所需的性能。Smoothblend®耐磨损改性塑料常采用的工程塑料，如POM、PC、PA6、PA6/6、PPO等。Smoothblend®耐磨损改性塑料免除了费时费钱的两次外润滑的工序，此类材料使设备和部件保持清洁，能长期使用，性能可靠。另外，内润滑的热塑性塑料无论在中性、酸性还是碱性的环境中，都有非常好的抗氧化性和抗腐蚀性，而金属零件在这些环境中都会遭到损坏。

特点：低磨损系数。

应用：打印机内部零件，数码相机，DVD放映机内部零件，轴承，滑片，齿轮，滑动部件。

Smoothblend® Lubricated & Wear Resistant Compounds

	TYPICAL PROPERTIES	ASTM TEST METHOD	UNITS	ABS-1100	PC-1200	PC-1201	PC-1301	PC-1302	POM-1200	POM-1201	POM-1400	POM-3500
	Filler Content			5% PTFE	10% PTFE	10%PTFE15%CF	15%PTFE20%GF	15%PTFE30%GF	10% PTFE	10%PTFE10%GF	20% PTFE	25%GB
	MECHANICAL / 机械性能											
1	Tensile Strength / 拉伸强度	D638	MPa	44	52	120	95	115	56	80	48	45
2	Elongation at break / 断裂伸长率	D638	%	25	10	2.5	2.5	2	15	8	35	40
3	Flexural Strength / 弯曲强度	D790	MPa	73	80	160	109	180	80	110	70	70
4	Flexural Modulus / 弯曲模数	D790	MPa	2500	2630	10500	6368	8612	2220	4080	2183	2400
5	Notched Izod Impact Strength @ 23°C, 3.2mm Thickness 缺口冲击强度	D256	J/m	150	190	100	113	190	56	65	55	40
	PHYSICAL / 物理性能											
1	Specific Gravity / 比重	D792	g/cm3	1.09	1.24	1.31	1.41	1.55	1.45	1.52	1.5	1.57
2	Mold Shrinkage* / 成型收缩率	D955	%	0.5-0.6	0.5-0.8	0.2-0.4	0.2-0.4	0.1-0.3	2-3	0.7-1	2-3	1.5-2
	THERMAL / 热性能											
1	Heat Deflection Temp@1.82 MPa (264psi) 热变形温度	D648	°C	100	130	140	123	145	108	145	91	145
2	Flammability / 燃烧性能	UL 94	-	HB	HB	HB	HB	HB	HB	HB	HB	HB
	OTHER PROPERTIES											
1	Coefficient of friction / 磨损系数 (vs. Steel – Dynamic) (vs. Steel – Static)	D1894 D1894	- -	0.4 0.27	0.25 0.08	0.28 0.13	0.42 0.18	- -	0.32 0.28	0.45 0.4	0.25 0.12	- -
	SUGGESTED PROCESSING PARAMETERS 建议操作参数											
1	Drying Temperature / 干燥温度		°C	80	120	120	120	120	80	80	80	80
2	Drying Time / 干燥时间		Hours	4	4	4	4	4	4	4	4	4
3	Processing (Melt) Temperature / 操作温度		°C	220-240	275-300	275-300	275-300	275-300	180-215	180-215	180-215	180-215
4	Mold Temperature / 模温		°C	60-70	85-110	85-110	85-110	85-110	80-105	80-105	80-105	80-105

Applications:

Smoothblend® compounds are used to make plastic gears and moving mechanical parts in auto door lock actuator, business machines, computer disk drives etc.

*The mold shrinkage values herein are solely based on our own laboratory testing specimens. Users are strongly advised to conduct their own test as molding conditions, mold design, thickness all play a part in determining the part shrinkage.

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