



## Cable Jacket Material Solution in Architecture and Home Decoration



## Application Advantages

### LSZH

The latest FireDefender™ LSZH product series is polyolefin catalogue flame retardant material (LSZH) specially developed by ATP to meet the high flame retardant requirement of cables and optical cables. Comparing with the traditional polyolefin catalogue flame retardant material, FireDefender™ experienced a longer time of research and development with more comprehensive and harsh tests. The overall promotion includes selection of raw materials, design of formulation, combination innovation of flame retardant system, innovation of lubrication system and production process control etc., which create a brand new upgraded version of LSZH material, in comparison with the conventional flame retardant polyolefin products, FireDefender™ series has the following characteristics:

#### 1. Retardant reliability

- 1 ) Fully support the mainstream specifications of architecture and home decoration cable meet the requirements of single vertical combustion and bundle combustion test.
- 2 ) Very effective solution of total heat release and peak heat release rate control, The higher carbon deposition efficiency, that refers to the quickly carburized of the cable surface while burning, which form an effective protective layer. Smoke generation and halogen gas release while burning fully meet the requirements of the regulations.

#### 2. Safety and reliability:

pass comprehensive tests, which includes aging resistance, heat resistance, environmental resistance and etc.;

#### 3. Good wear resistance:

provided with better wear resistance and scratch resistance than the others in a same testing condition;

#### 4. Good process-ability:

fully meet the requirements of high-speed extruding, line diameter rounded and Stable, less salivation (less die stock), good color stability and higher yield rate;

#### 5. Quality control:

batch stability and homogeneity guarantee.

## Properties Datasheet

Item	Material properties	Test standard	Test condition	Unit	Model	Model
					5851E-HSS-0002S	5831E-HSS-0004S
Physical characteristics	Hardness	DIN 53505	155	Shore A	94	94
	Proportion	DIN 53479	-	g/cm <sup>3</sup>	1.46	1.48
	Brittle temperature	ISO 812	-	°C	-25	-20
mechanical properties	Elongation	DIN 53504	200mm/min	%	170	180
	Tensile Strength	DIN 53504	200mm/min	Mpa	15	10.2
Hot air aging	Heat aging condition	DIN 53504	158°C/168h	%	135±2×168	120±2×168
	Tensile Strength/ Break Elongation	DIN 53504	158°C/168h	%	104/103	+8/-6
Electrical performance	Volume resistivity	ASTM D257	-	Ω·m	4.0×10 <sup>12</sup>	2.1×10 <sup>12</sup>
	Dielectric strength	ASTM D149	-	MV/m	24	23
Combustion performance	Oxygen index	ASTM D2863	-	%	32	33
Feature					105 °C cross-linking flame-retardant wire and cable insulation, sheath material, can satisfy the demands of JB/T10491 home installs wiring flame retardant	90 °C cross-linking flame-retardant wire and cable sheath material, suitable for IEC60092-360 [Marine power cable and communication cable sheath material SHF2 in standard



ATP Polymer

## ATP Polymer Technology Co.,Ltd

- ✉ [info@atpchem.com](mailto:info@atpchem.com)
- ☎ +86 769 38802055
- 📞 +86 769 23116805
- 📍 2# Building,Guanghui Industrial Zone  
Dongcheng Hi-Tech Park  
Donguan,Guangdong  
China

