



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 ³ | 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 ¹² | 2.1×10 ¹² |
| | 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
☎ +86 769 38802055
📞 +86 769 23116805
📍 2# Building,Guanghui Industrial Zone
Dongcheng Hi-Tech Park
Donguan,Guangdong
China

