

| 特性<br>Characteristics         |  | 材料名<br>Name of material | 交联 PVC<br>Cross-link PVC | 尼龙 6<br>Nylon 6            | 聚丙烯<br>Polypropylene | 聚酯<br>Polyester      | PVDF                |
|-------------------------------|--|-------------------------|--------------------------|----------------------------|----------------------|----------------------|---------------------|
|                               |  |                         |                          |                            |                      |                      |                     |
| 电气性能<br>Electrical properties | 体积电阻率<br>Volume resistance<br>( $\Omega \cdot \text{cm}$ 20℃)      |                         | $10^{12} \sim 10^{15}$   | $4 \times 10^{14}$         | $6.5 \times 10^{16}$ | $> 10^{17}$          | $2 \times 10^{14}$  |
|                               | 介电常数<br>Specific capacity<br>(50~106Hz)                            |                         | 3.5~6                    | 3.1~3.9                    | 2.25                 | 3.0~3.2              | 6.4~8.4             |
|                               | 绝缘场强<br>Dielectric strength<br>(kV/mm)                             |                         | 20~30                    | 25                         | 32                   | 10~20                | 10                  |
|                               | 损耗角0~正切<br>Dielectric tangent<br>(50~106Hz%)                       |                         | 6~12                     | 2~4                        | 0.02~0.06            | 0.2~0.5              | 1.5~5               |
| 机械性能<br>Mechanical properties | 抗张强度(MPa)<br>Tensile strength<br>(N/mm <sup>2</sup> )              |                         | 11~24                    | 60                         | 28~38                | 100~170              | 30~50               |
|                               | 伸长率 Elongation(%)  |                         | 150~250                  | 250                        | 250~700              | 70~130               | 100~300             |
|                               | 可挠性<br>Flexibility   |                         | ○ Superior               | △ Normal                   | △ Normal             | ○ Good               | ○ Good              |
| 物理性能<br>Physical properties   | 密度(20℃)<br>Specific gravity  |                         | 1.3~1.5                  | 1.1~1.2                    | 0.9~1                | 1.3~1.4              | 1.7~1.8             |
|                               | 熔点(℃)<br>Melting point   |                         | —                        | 210                        | 155~160              | 250                  | 172                 |
|                               | 耐热温度<br>(连续使用℃)<br>Heat resistant temperature<br>(continuous use℃) |                         | 105                      | 105                        | 90                   | 120                  | 150                 |
|                               | 最低使用温度(℃)<br>Min.use temperature                                   |                         | -15~-30                  | <-60                       | -5~-45               | <-60                 | <-60                |
| 其他性能<br>others                | 阻燃性<br>Flame retardant   |                         | 难燃<br>Flame retardant    | 易燃<br>Easy flammable       | 易燃<br>Easy flammable | 易燃<br>Easy flammable | 不燃<br>Non-flammable |
|                               | 耐油性<br>Oil resistance  |                         | △ Medium resistive       | ○ high resistive           | ○ high resistive     | ○ high resistive     | ○ high resistive    |
|                               | 耐酸性<br>Acid resistance   |                         | × Less resistive         | × Less resistive           | △ Medium resistive   | × Less resistive     | ○ high resistive    |
|                               | 耐碱性<br>Alkali resistance   |                         | ○ high resistive         | ⊙ Extremely high resistive | ○ high resistive     | × Less resistive     | ○ high resistive    |
|                               | 耐臭氧<br>Ozone resistance  |                         | ○ high resistive         | × Less resistive           | △ Medium resistive   | × Less resistive     | ○ high resistive    |
|                               | 耐水性(吸水率%)<br>Water resistance<br>(water absorptivity%)             |                         | △ Good                   | △ Good                     | ⊙ Superior           | △ Good               | ○ Superior          |
| 加工性<br>workability            |  | ○ Superior              | △ Good                   | △ Good                     | ○ Superior           | ○ Superior           |                     |
| 价格<br>Price                   |  | 低<br>Low                | 中<br>Medium              | 低<br>Low                   | 中<br>Medium          | 高<br>high            |                     |

Remark: "⊙" 极强 "○" 强 or 优 "△" 中 or 良 "×" 弱