

# Gunze Kobunshi

## New Product

### Kopalon "PTCZ" type [Thick wall heat shrinkable tube]

#### Basic Properties

- (1)Materials : Polyethylene Terephthalate  
 (2)Shrink Ratio: Lateral change approx. 40%  
 : Longitudinal change approx. 10%

#### Features

- (1)Thick wall (300micrometer) and high durability  
 (2)Good chemical resistance \*in Table 1  
 (3)RoHS compatible  
 (4)Halogen and Sb free

\*Table 1: Chemical resistance of PTCZ

| Medium                       | Assessment Result |
|------------------------------|-------------------|
| Ketone                       | Excellent         |
| Estar                        | Excellent         |
| Chlorinated Solvent          | Excellent         |
| Aromatic Hydrocarbon Solvent | Excellent         |
| Acids                        | Fair              |
| Alkalis                      | Poor              |
| Alcohol                      | Fair              |
| Gasoline                     | Excellent         |
| Grease                       | Excellent         |

#### Application

- (1)Electrical insulation for large can type capacitors  
 (2)Insulation and protective for metal sleeve

#### Properties

| Properties           | Items                 | Requirements  | Typical Values                               |
|----------------------|-----------------------|---------------|----------------------------------------------|
| Specifications       | Wall Thickness        | 300 ± 60 μ m  | Max. 345 μ m<br>Min. 263 μ m<br>Ave. 302 μ m |
|                      | Shrink Ration:Radical | 45 ± 3%       | 45%                                          |
|                      | Shrink Ration:Long.   | 7 ± 3%        | 7%                                           |
| Heat Resistance Test | Appearance            | 85C × 1H      | None                                         |
|                      | Streaks, Wrinkls,     | 160C × 30Min. | None                                         |
|                      | Cracking              | Boil × 5Min.  | None                                         |

#### Shrink Property

