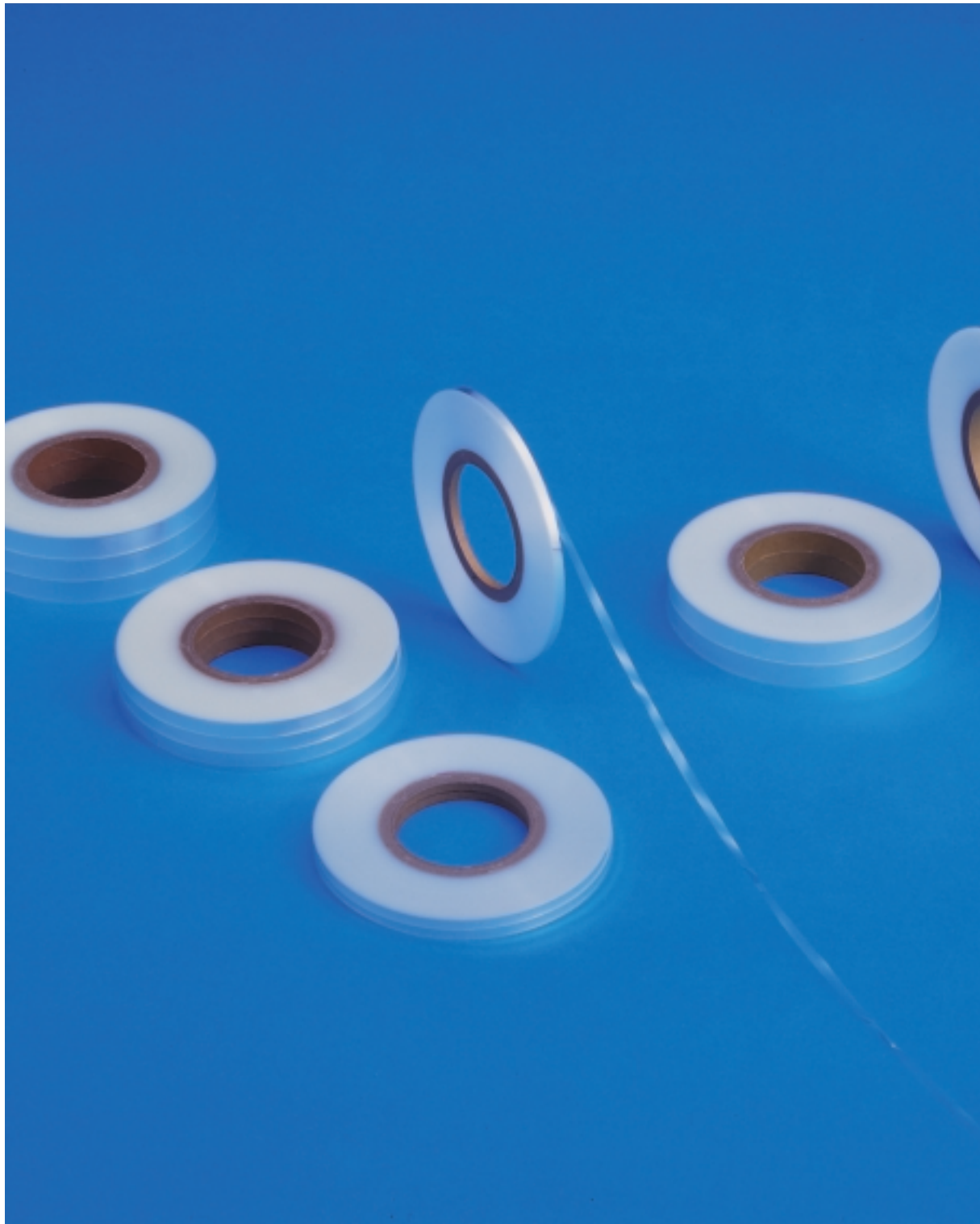




**Shin-Etsu Film**

**Wrapping Film**

**Shin-Etsu Processing PT Tape**



## Wrapping Film

### Shin-Etsu Processing PT Tape

We applied the production technology that we developed for electric and electronic polypropylene film to create our processing films. Shin-Etsu processing films are wrapping tapes used in carbon fiber prepreg molding. They are ideal for wrapping cylindrical molded objects made using carbon fiber prepreg, including fishing rods and golf shafts.



## Features

1. Tensile characteristics  
With tensile strength over 196 MPa, the proper tension can be applied during wrapping. This results in molded objects with excellent strength.
2. Heat shrinkage and heat stress characteristics  
Our tapes have heat shrinkage and heat stress characteristics that match the cure speed as the carbon fiber prepreg matrix resin (epoxy) fuses and cures.
3. Releasability  
These tapes have excellent releasability, so the film can easily be removed from the molded object after curing.

## Applications

For wrapping cylindrical molded objects made using carbon fiber prepreg, including fishing rods and golf shafts.

## Classifications (material, thickness)

| Product name |    | PT-30H | PT-30SD | PT-30SD2 | PT-25H | PT-22H | PET-25K |
|--------------|----|--------|---------|----------|--------|--------|---------|
| Item         |    |        |         |          |        |        |         |
| Material*    |    | OPP    | OPP     | OPP      | OPP    | OPP    | PET-K   |
| Thickness    | μm | 30     | 30      | 30       | 25     | 22     | 25      |

\* OPP: biaxially oriented polypropylene film.

PET-K: biaxially oriented polyester film with silicone applied to its face.

## General properties

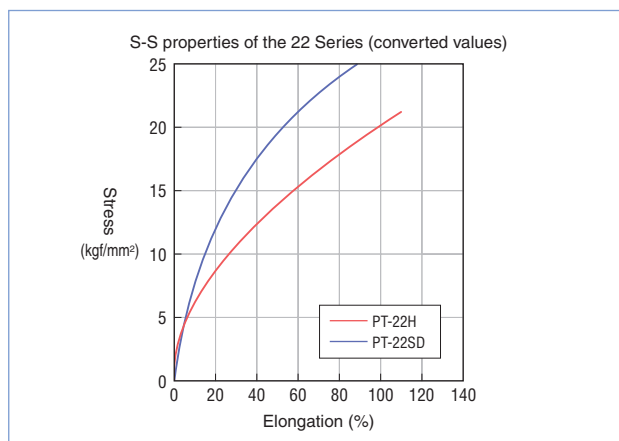
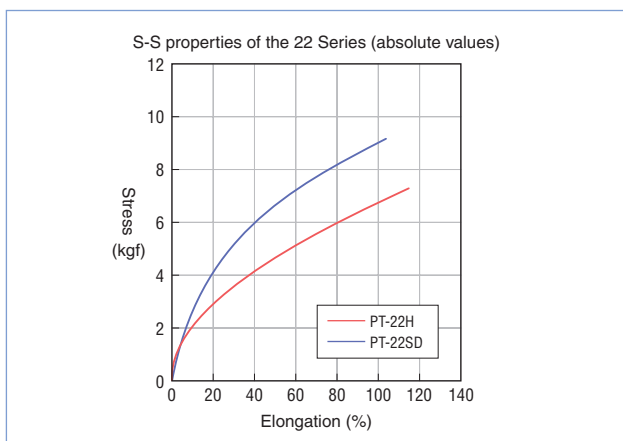
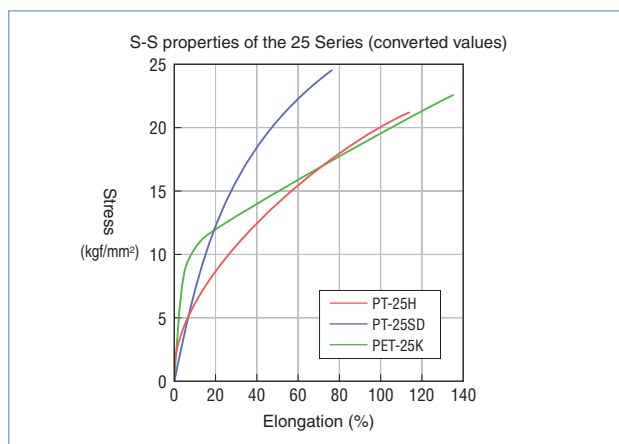
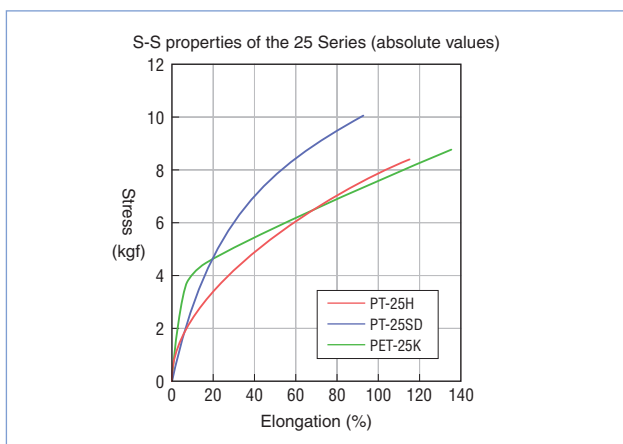
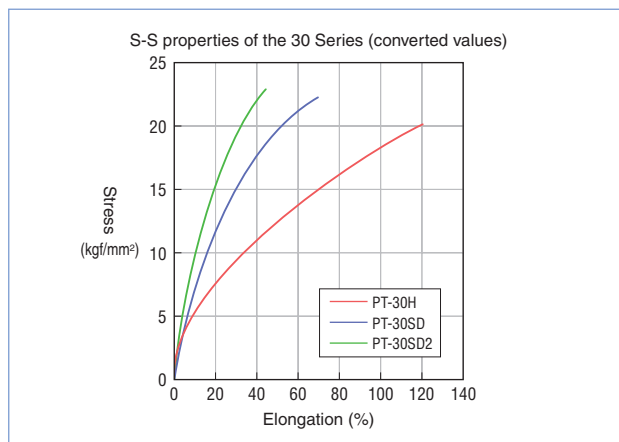
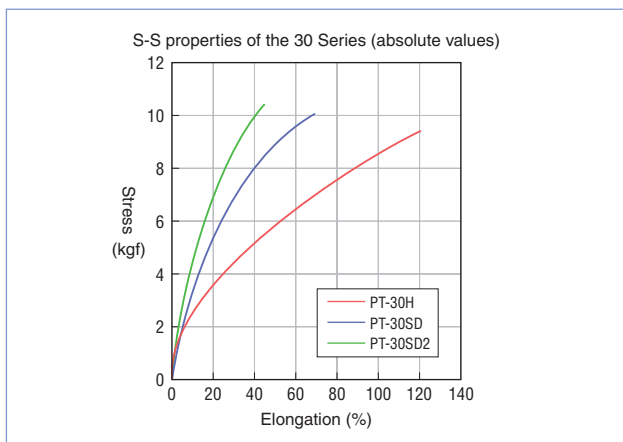
| Product name                       |     | Unit                          | PT-30H        | PT-30SD       | PT-30SD2      | PT-25H        | PT-22H        | PET-25K       |
|------------------------------------|-----|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Tensile strength                   | MD  | MPa<br>{kgf/mm <sup>2</sup> } | 196<br>{20.0} | 221<br>{22.5} | 260<br>{26.5} | 199<br>{20.3} | 209<br>{21.3} | 215<br>{21.9} |
|                                    | CMD | MPa<br>{kgf/mm <sup>2</sup> } | 274<br>{28.0} | 175<br>{17.9} | 165<br>{16.8} | 280<br>{28.6} | 277<br>{28.3} | 176<br>{18.0} |
| Elongation at break                | MD  | %                             | 117           | 68            | 70            | 112           | 104           | 132           |
|                                    | CMD | %                             | 62            | 135           | 138           | 59            | 60            | 134           |
| Heat shrinkage<br>(120°C x 15 min) | MD  | %                             | 2.0           | 1.5           | 3.2           | 2.1           | 2.2           | 0.8*          |
|                                    | CMD | %                             | 0.2           | -0.5          | -0.4          | 0.1           | 0.2           | 0.0*          |
| Haze                               |     | %                             | 2             | 5             | 5             | 2             | 2             | 1             |

{ }=conventional unit

\* 120°C x 120 min

(The above values are measured values, not standard values)

## Mechanical properties



\*1 Test method: JIS C 2330 (dimensions of samples: 15 mm x 250 mm; marker interval: 100 mm; tensile speed: 200 mm/min)

\*2 None of the above data represents standard values.

## Packaging

### Film widths and product roll diameters

|                         |           |                               |
|-------------------------|-----------|-------------------------------|
| Tape width              | mm        | 8, 10, 12, 15, 18, 20, 25, 30 |
| Roll length             | m         | 500, 1,000                    |
| Inside diameter of core | mm $\phi$ | Standard is 76 mm (3 inches)  |

\* Shin-Etsu can also manufacture tapes to custom specifications not listed here.

## Storage and Handling Precautions

- Store indoors in a cool place, out of direct sunlight. Products should be used as soon as possible after delivery.
- The core may loosen due to seasonal temperature fluctuations.
- Take care not to damage the tape edge; even minor damage may lead to tape breakage.

Contact Shin-Etsu for more information about our PT processing tapes.

**Shin-Etsu Film Co., Ltd**

Stage Uchikanda, 3-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo, 101-0047, Japan ..... TEL+81-3-3259-1061

FAX+81-3-3259-1064

E-mail: [s.takahashi@shinetsu.jp](mailto:s.takahashi@shinetsu.jp)

<http://www.shinetsu-film.co.jp>