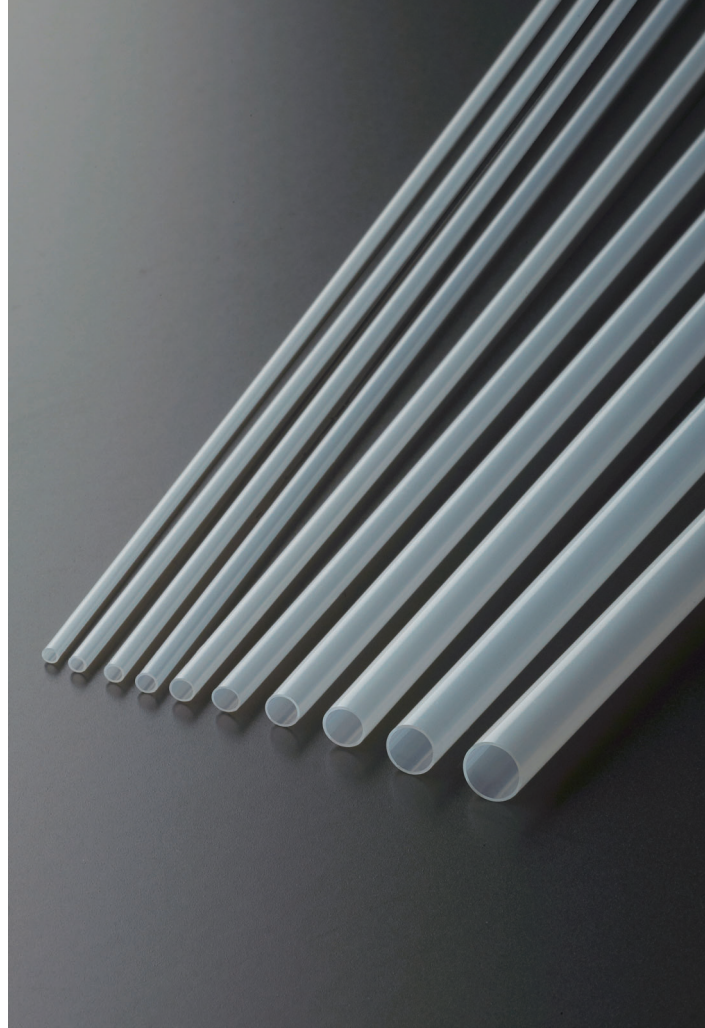


## Junkosha Peelable Heat Shrink Tubing

### NFPR Standard 1.8:1 Shrink Ratio Offering

Removing traditional FEP-Heat Shrink Tubing (HST) smoothly has been a serious problem in catheter manufacturing for many years. To resolve the issue of 'skiving' it off, Junkosha designed a product called Peelable Heat Shrink Tubing (PHST). Offering all of the performance of standard heat shrink tubing, it includes one critical difference: it is easy to remove from the catheter. Junkosha's Peelable Heat Shrink Tubing solution needs only a single slit at one end to get it started, enabling it to be easily peeled along its entire length.

Junkosha's portfolio includes the widest range of both small and large size peelable heat shrink tubing solutions on the market today. With a shrink ratio of 1.8:1 and recovered wall thickness down to 0.25+/-0.05 mm, our translucent product provides catheter manufacturers with the versatility they require to complete intricate bonding and welding applications more efficiently. Junkosha has extended the catalogue offering to include 1.8:1 PHST offerings with samples readily available. Please contact your Sales Associate to request.



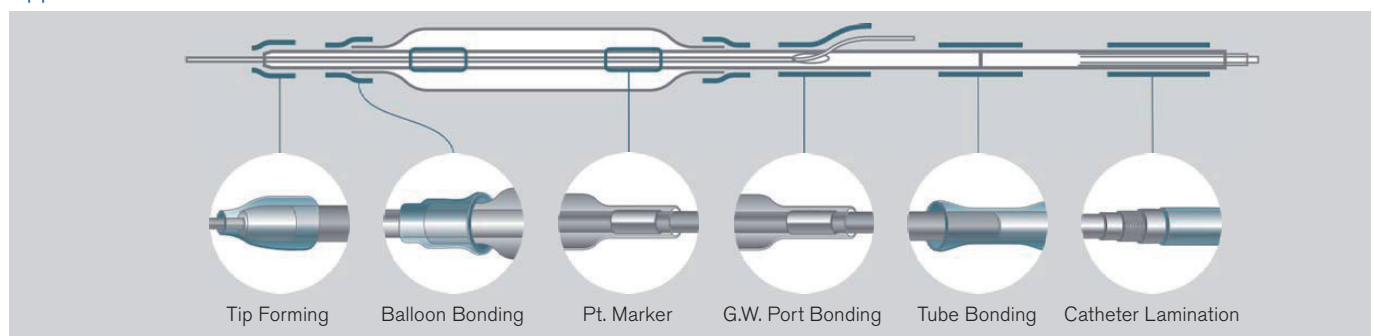
#### Features

- **Material Melting Temperature:** 245°C to 275°C.
- **Peelable Design:** It features an easily peelable design, reducing the risk of damage to the catheter during removal.
- **Customizable Options:** In addition to the products listed in the catalog, we also offer custom size options, allowing you to choose the most suitable option according to your needs.
- **Elongation Properties:** The lengthwise elongation of the tube after shrinkage can be controlled within a specific range.
- **USP Class VI Certified Material:** The tube material is certified to meet the stringent requirements of USP (United States Pharmacopeia) Class VI, ensuring safety and quality.

#### Properties

Product Series Name	NFPR Standard	NFPS Standard
Material	FEP based fluoropolymer	FEP based fluoropolymer
Color	Translucent	Translucent
Expanded I.D. (Min.) [mm/inch]	0.72-3.78 / 0.0283-0.1488	0.64-3.36 / 0.0252-0.1323
Full Recovered I.D. (Max.) [mm/inch]	0.4-2.10 / 0.0157-0.0827	0.4-2.10 / 0.0157-0.0827
Full Recovered Wall Thickness [mm/inch]	0.25-0.30 (+/-0.05) / 0.0098-0.0118 (+/-0.0020)	0.20-0.275 (+/-0.05) / 0.0079-0.0108 (+/-0.0020)
Shrink Ratio	1.8:1	1.6:1
Biocompatibility	USP Class VI	USP Class VI

#### Applications



## Product Lineup

### NFPR

Standard      1.8:1 Shrink Ratio      Standard Length: 1700 mm      Color: Translucent      Recommended Temperature: 200°C

Parts No.	Metric			Imperial			French
	Expanded I.D. Min.	Full Recovered I.D. Max.	Full Recovered Wall Thickness	Expanded I.D. Min.	Full Recovered I.D. Max.	Full Recovered Wall Thickness	Suitable for
NFPR006	0.72 mm	0.40 mm	0.25 +/- 0.05 mm	0.0283"	0.0157"	0.0098 +/- 0.0020"	1.6 - 1.8 Fr
NFPR007	0.90 mm	0.50 mm	0.25 +/- 0.05 mm	0.0354"	0.0197"	0.0098 +/- 0.0020"	1.9 - 2.4 Fr
NFPR008	1.08 mm	0.60 mm	0.25 +/- 0.05 mm	0.0425"	0.0236"	0.0098 +/- 0.0020"	2.2 - 2.9 Fr
NFPR010	1.26 mm	0.70 mm	0.25 +/- 0.05 mm	0.0496"	0.0276"	0.0098 +/- 0.0020"	2.5 - 3.5 Fr
NFPR011	1.44 mm	0.80 mm	0.25 +/- 0.05 mm	0.0567"	0.0315"	0.0098 +/- 0.0020"	2.8 - 4.0 Fr
NFPR013	1.62 mm	0.90 mm	0.25 +/- 0.05 mm	0.0638"	0.0354"	0.0098 +/- 0.0020"	3.1 - 4.6 Fr
NFPR014	1.80 mm	1.00 mm	0.25 +/- 0.05 mm	0.0709"	0.0394"	0.0098 +/- 0.0020"	3.4 - 5.1 Fr
NFPR018	2.34 mm	1.30 mm	0.25 +/- 0.05 mm	0.0921"	0.0512"	0.0098 +/- 0.0020"	4.3 - 6.7 Fr
NFPR022	2.88 mm	1.60 mm	0.28 +/- 0.05 mm	0.1134"	0.0630"	0.0110 +/- 0.0020"	5.2 - 8.4 Fr
NFPR029	3.78 mm	2.10 mm	0.30 +/- 0.05 mm	0.1488"	0.0827"	0.0118 +/- 0.0020"	6.7 - 11.1 Fr

### Specifications

Product Series Name	NFPR Standard	NFPS Standard
Expanded I.D.( Min.) [mm/inch]	0.72-3.78 / 0.0283-0.1488	0.64-3.36 / 0.0252-0.1323
Full Recovered I.D. (Max.) [mm/inch]	0.4-2.10 / 0.0157-0.0827	0.4-2.10 / 0.0157-0.0827
Full Recovered Wall Thickness [mm/inch]	0.25-0.30 (+/-0.05) / 0.0098-0.0118 (+/-0.0020)	0.20-0.275 (+/-0.05) / 0.0079-0.0108 (+/-0.0020)
Shrink Ratio	1.8:1	1.6:1
Color	Translucent	Translucent
Material Melting Temperature [°C]	245~275	245~275
Peelable	Yes	Yes
Elongation [%]	10±5	10±5
Removable	Yes	Yes
Friction	Low	Low
Biocompatibility	USP Class VI	USP Class VI

\*Shrink Ratio = Expanded I.D./Recovered I.D.

### Visual Appearance

Example with Various Catheter Materials Inserted into Peelable Tubing

NFPR Standard



NFPS Standard



\*Junkosha is manufactured and inspected in mm and values in inch are for reference only. Measurements of each dimension are performed using metric based measuring instruments.

\*The inch values are calculated from the actual measured values (metric values) using the following formula, with one digit below the displayed digit rounded to the nearest value (numbers 5 and above are rounded up, and numbers below 5 are rounded down). (Inch value) = (Metric value) ÷ 25.4

\*Peelable Heat Shrink Tubing meets the requirement of USP Plastic Class VI. Certificates available on request.

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