

**NETT** tex<sup>®</sup>

# Product manuals

Suzhou NETT New Material Technology Co.,Ltd

[www.ptfe-nett.com](http://www.ptfe-nett.com)

## Introductions of Polytetrafluoroethylene (PTFE) Sewing Threads for Practical Operation

Dear clients,

It is with great honor and appreciation that we thank you for choosing our products NETTtex<sup>®</sup> PTFE sewing threads . In the practical operation, we believe that the following information can help you plan the reasonable operation and application.

1. The purified PTFE resin powders are chosen to be as crude materials for manufacturing NETTtex<sup>®</sup> PTFE sewing threads whose unique properties, such as excellent thermal stability (-196℃-260℃)and exceptional corrosion resistance and anti-hydrolysis or oxygen reaction, are the main advantage for the wide application.
2. In industrial application, threads must be away from the fire to avoid the formation of harmful chemical gases.
3. According to requirements of National Standard Measurement Department and the international customary standard, the unit (decitex, abbreviated dtex) the definition of which is the mass in grams per 10,000 meters is employed to characterize linear density of our sewing threads. For example, the linear density of 1350dtex means that mass of threads is 1350g for each 10000 meters. Additionally, another customary unit (den or D, short for denier) which is determined by the measurement of weight (grams) per unit of length (9000 meters) is also usually applied to describe fineness of threads. Therefore, the relationship between two different units is 1 den is equal to 0.9 dtex.
4. Generally, filter bags which are applied to purify the industrial dust are manufactured with polyphenylene sulfide (PPS) or PTFE/PPS composite nonwoven filtration materials by the sewing process. However, due to rigid puncture,

the needles may destroy the random arrangement of fibers in the filtration materials, which leads to the formation of extra free space around the sewing threads and decreasing filtration efficiency of filter bags. In order to solve the problem, we believe that either the professional sewing thread, such as the PTFE/PPS blend yarn, or the fine needle is a good choice.

5. NETTtex®PTFE sewing threads are made up of 3 PTFE round filaments. These filaments are manufactured using the paste extrusion process and exhibit outstanding physical characteristics (uniform distribution of diameter, low shrinkage, and stable stretchability). Especially, we can supply threads with linear density of 1350dtex(1200D) and high continuous length of 7500 meters. Besides, other threads with various linear densities (1650dtex/1500D, 2000dtex/1800D and 2650dtex /2400D) are also manufactured to enhance the stitching points in the top and bottom of filter bags.

6. PTFE round filaments with high length are manufactured with the continuous formation process rather than with the manual bonding method to ensure the stable performances of threads and filter bags.

7. Due to the high self-lubricating property, PTFE threads may detach from the needle pinhole, forcing to interrupt the sewing operation. Hence, we need cover the sewing needles with special silicone oil to avoid the separation between threads and needles.

8. The linear density and strength of NETTtex®PTFE sewing threads are the mean values calculated from a large amount of measurement data the variant coefficients of which are controlled within  $\pm 10\%$ , which may be due to the inevitable difference in mass density.

9. Fluorine element is from the nonrenewable mineral resource rather than the petroleum. Therefore, PTFE threads are ought to be used reasonably. Additionally, the non-degradable PTFE materials need to be collected and destroyed with correct and approved method. More importantly, firing the blend trash including PTFE and conventional could result in the formation of poisonous gases and air pollution, which is prohibited.

Thank you for your support sincerely and your valuable advice is most welcome.

## Technical parameters of PTFE sewing threads(1)

**Model: ST- EF/1350/3-a**

NO.	Parameter	Value	Test temperature	Notes
1	linear density	1350±50dtex	ambient temperature	1200 D
2	breaking strength	≥36N	<20 °C	
3	breaking tenacity	≥2.6cN/dtex	<20 °C	
4	elongation at break	4-10%	<20 °C	
5	Heat-shrinkage rate	≤3%	260°C/2h	
6	yarn	3		
7	average mass per one meter	0.135g/m		
8	The maximum length of each roll of threads	7500m		without knots

## Technical parameters of PTFE sewing threads(2)

**Model: ST- EF/1650/3-a**

NO.	Parameter	Value	Test temperature	Notes
1	linear density	1650±60dtex	ambient temperature	1500 D
2	breaking strength	≥38N	<20 °C	
3	breaking tenacity	≥2.3cN/dtex	<20 °C	
4	elongation at break	4-10%	<20 °C	
5	Heat-shrinkage rate	≤3%	260°C/2h	
6	yarn	3		
7	average mass per one meter	0.165g/m		
8	The maximum length of each roll of threads	6000m		without knots

### Technical parameters of PTFE sewing threads(3)

**Model: ST- EF/2000/4-a**

NO.	Parameter	Value	Test temperature	Notes
1	linear density	2000±100dtex	ambient temperature	1800 D
2	breaking strength	≥49N	<20 °C	
3	breaking tenacity	≥2.45cN/dtex	<20 °C	
4	elongation at break	4-10%	<20 °C	
5	Heat-shrinkage rate	≤3%	260 °C/2h	
6	yarn	4		
7	average mass per one meter	0.20g/m		
8	The maximum length of each roll of threads	5000m		without knots



Expert's warning

All rights reserved

Please keep upright!



Avoid dropping and collisions.



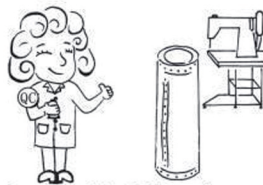
Avoid burning! Toxic gas!



Waste materials must be recycled! Prohibit to discard or incinerate.



Pls cherish the value.



Quality of the PTFE sewing thread guarantee the quality of the filter bag.

All Rights Reserved  
Reprint Prohibited

Tel:(+86)0512-58915029 Fax:(+86)0512-58915028

P.C:215600 E-mail:mgchen@ptfe-nett.com

Website:www.ptfe-nett.com

Add:NO.13 Zhenxing Road,Zhangjiagang City,  
Jiangsu Province,China