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# ThermaSeal<sup>TM</sup> 60

Dry | Pre-Wetted | Sterile



### TECHNICAL DATA SHEET



ThermaSeal™ 60  
100% polyester



## Products

Number	Description	Sterile	Packaging	Case
<i>Dry Wipers—ThermaSeal™ 60</i>				
<b>TX2064*</b>	4" x 4" (10 cm x 10 cm) dry		300 wipers/bag (2 inner bags of 150)	20 bags
<b>TX2064B*</b>	4" x 4" (10 cm x 10 cm) dry, bulk packaged		600 wipers/bag	10 bags
<b>TX2068B*</b>	7" x 8" (18 cm x 20 cm) dry, bulk packaged		200 wipers/bag	10 bags
<b>TX2069*</b>	9" x 9" (23 cm x 23 cm) dry		150 wipers/bag (2 inner bags of 75)	10 bags
<b>TX2069B*</b>	9" x 9" (23 cm x 23 cm) dry, bulk packaged		150 wipers/bag	10 bags
<b>TX4392**</b>	9" x 9" (23 cm x 23 cm) dry		60 wipers/bag	8 bags
<i>Pre-Wetted Wipers—ThermaSat™ 60</i>				
<b>STX4303**</b>	7" x 8" (18 cm x 20 cm) pre-wetted with 70% IPA / 30% WFI	●	15 wipers/bag (1 bag/VHP barrier bag)	20 bags
<b>TX4304**</b>	9" x 9" (23 cm x 23 cm) pre-wetted with 70% IPA / 30% DI		75 wipers/bag	4 bags
<b>STX4305**</b>	9" x 9" (23 cm x 23 cm) pre-wetted with 70% IPA / 30% WFI	●	15 wipers/bag (1 bag/VHP barrier bag)	15 bags
<b>STX4306**</b>	11"x11" (28 cm x 28 cm) pre-wetted with 70% IPA / 30% WFI	●	20 wipers/bag	15 bags
<b>TX4307**</b>	4" x 4" (10 cm x 10 cm) pre-wetted with 70% IPA / 30% WFI		100 wipers/bag	15 bags
<b>TX4308**</b>	9" x 9" (23 cm x 23 cm) pre-wetted with 70% IPA / 30% WFI		20 wipers/bag	15 bags

\*Made in China

\*\*Made in Europe

### T E C H N I C A L   D A T A   S H E E T

#### Description

ThermaSeal™ 60 is made from 100% polyester with a sealed edge, cleanroom laundered. Available dry (ThermaSeal™), pre-wetted (ThermaSat™), sterile and non-sterile.

#### Applications

- Wiping and cleaning surfaces, equipment and parts
- Applying and removing lubricants, adhesives, residues and other solutions including disinfectants.
- Cleaning with solvents such as isopropyl alcohol (IPA), ethanol, acetone, and degreasers.
- Cleaning gloves, notebooks, phones or any other item entering the cleanroom.
- Lining trays for holding, protecting, drying and storing of parts, equipment and devices.
- Appropriate for use with temperatures less than 400° F (205°C) (dry wipers only!).

#### Industries

Aerospace	Animal Laboratory	Biologics
Cleanroom Design/Build	Compounding Pharmacies	Data Storage
Facilities Maintenance	Industrial	Laboratory
Medical Device	Microelectronics	Pharmaceutical
Printing/Graphics	Semiconductor	USP <797> / USP <800>

#### Features & Benefits

- Constructed from 100% polyester creating a wiper ideal for spill control, cleaning, and solution application.
- Cleanroom laundering providing low levels of ions and NVRs (non-volatile residues) particles. (TX2064 & TX2069)
- Designed for use on abrasive surfaces. This wiper will not easily snag or abrade releasing particles and fibers into the process or environment.
- Excellent chemical resistance for compatibility with a variety of solutions.
- Autoclave safe (dry wipers only!).
- ThermaSeal™ and ThermaSat™ wipers are packaged in easy-to-open bags (perforated bag, slider bag or peel and reseal bag).
- ThermaSat™ products are prewet with 0.2 µm filtered 70% IPA / 30% DIW or 30% WFI for ease of use.
- ThermaSat™ wipers provide consistent, optimized cleaning efficiency with repeatable wetness and VOC levels.
- ThermaSat™ wipers are packaged in reclosable slider bags and peel-and-reseal bags reducing solution evaporation that preserves the consistent wiper wetness level.
- For aseptic manufacturing inside RABS and isolators, ThermaSat™ wipers also come in an additional VHP barrier foil bag providing protection for the product during the VHP sanitizing process.
- Meets USP <797> and USP <800> wiper requirements.
- Individually lot coded for ease of traceability and quality control.

#### Cleanroom Environment

- ISO Class 3 – 7
- Class 1 – 10,000
- EU Grade A – D

#### Shelf Life

- Non-Sterile (Dry) – 5 years from date of manufacture
- Non-Sterile (Pre-Wetted) – 3 years from date of manufacture
- Sterile (Dry & Pre-Wetted) – 3 years from the date of manufacture

*Custom products available upon request.*

### T E C H N I C A L   D A T A   S H E E T

#### Performance Characteristics

Property	Typical Value	Test Method*
<b>Particles and Fibers</b>		
Particles: 0.5-5.0 µm	19 x 10 <sup>6</sup> particles/m <sup>2</sup>	1, TM20
5.0-100 µm	79,000 particles/m <sup>2</sup>	1, TM20
LPC: ≥0.5 µm	3.5 x 10 <sup>6</sup> particles/m <sup>2</sup>	1, TM22
Fibers: >100 µm	600 fibers/m <sup>2</sup>	2, TM22
<b>Nonvolatile Residue</b>		
IPA extractant	0.03 g/m <sup>2</sup>	1, TM1
DIW extractant	0.01 g/m <sup>2</sup>	1, TM1
<b>Ions</b>		
Sodium	0.3 ppm	1, TM18
Potassium	0.12 ppm	1, TM18
Chloride	0.06 ppm	1, TM18

#### Physical Characteristics

Property	Typical Value	Test Method*
<b>Absorbency</b>		
Sorptive capacity	350 mL/m <sup>2</sup>	1, TM20
Sorptive rate	0.5 second	1, TM20
<b>Basis Weight</b>	122 g/m <sup>2</sup>	1, TM20

#### Test Methods

- 1 – “Evaluating Wiping Materials Used in Cleanroom and Other Controlled Environments,” IEST-RP-CC004.3, Institute for Environmental Sciences and Technology, Rolling Meadows, IL, 2004; [www.iest.org](http://www.iest.org).
- 2 – E2090-12, “Standard Test Method for Size-Differentiated Counting of Particles and Fibers Released from Cleanroom Wipers Using Optical and Scanning Electron Microscopy,” ASTM International, West Conshohocken, PA, 2012; [www.astm.org](http://www.astm.org).
- TM – Refers to Texwipe Test Method – available upon request. Contact Texwipe Customer Service at [www.texwipe.eu](http://www.texwipe.eu) or [info@texwipe.com](mailto:info@texwipe.com) for a copy.

Note: The data in this table represent typical analyses.

#### For sterile products:

- Irradiated to a Sterility Assurance Level of 10<sup>-6</sup> according to AAMI Guidelines.
- Certificates of Compliance, Analysis and Irradiation attached to each case.
- Sterile Validation Documentation available upon request.

*Texwipe holds ISO 9001:2015 registration.*

*All Texwipe products conform to GHS classification for labeling (where applicable).*

*Shipping classification based on weight of inner package.*