

# Vectra® Alpha® MD Wipers

Vectra® Process 100% microdenier polyester sealed-border wipers



## Applications

- **Pharmaceutical and other Life Sciences**
  - Application of liquid during wipe down procedures
  - Wiping of stainless steel, glass, plastic, and mirror surfaces that must be streak-free and smudge-free
- **Microelectronics**
  - Equipment wiping requiring a highly abrasion resistant wiper
  - Cleaning requirements in the semiconductor areas of Implant, Photolithography, Deposition, Anneal, Etch, and CMP
- Dry or wet wiping of components in vacuum specific processes
- Wiping and cleaning of "parts clean" work areas
- Equipment surface cleaning and liquid applications for general work areas
- Laundered and recycled to non-cleanroom environments

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## Description

Vectra® Alpha® MD Wiper is a 100% continuous-filament, double-knit microdenier polyester wiper. Microdenier wipers consist of synthetic fibers with denier per filament (dpf) < 1. The Vectra Alpha MD Wiper has four times the number of filaments and twice the surface area of standard polyester wipers and provides more effective fluid movement and particle capture than woven, knitted, or non-woven fabrics with standard yarns.

The Vectra Alpha MD was developed through the collaboration of the Texwipe Engineering and Development team and leading industry manufacturing facilities. ITW Texwipe's patented\* sealed-border technology produces four fully sealed borders to prevent the release of fibers and particles.

The Vectra Alpha MD Microdenier wiper is manufactured using the Vectra® Process, a proprietary process that manufactures wipers more efficiently than any cleanroom laundry, producing the cleanest wiper available.

## Features

- Resists abrasion under rigorous use or when wiping rough surfaces
- Excellent balance between wiping efficiency, abrasion resistance and sorbency
- Particulate and liquid capture efficiency is maximized by the increase in surface area as a result of the increased number of the filaments
- Solvent-safe Bag-Within-A-Bag® cleanroom packaging with reclosable slider opening
- Designed for use in ISO Class 3–5 cleanroom environments

## Benefits

- Reduced wiper contamination levels improving surface cleanliness
- Greater surface area increases sorption of liquids and eliminates barrier films
- Greater surface area creates an increased holding capacity for improved liquid dispersion applications
- Controlled and documented product reliability wiper-to-wiper through the use of ITW Texwipe's statistical quality control programs
- Improved vacuum chamber performance from reduced particles and residue
- Reclosable slider bag reduces costs from product waste and from contamination of exposed wipers

## Products

TX Number	Description	Packaging
<b>TX8670</b>	Vectra® Alpha® MD 9" x 9" nominal (23 cm x 23 cm) double-knit 100% microdenier polyester sealed-border wipers	100 wipers/bag, 2 inner bags of 50; 10 bags/case

\*Patent #4,888,229

# Vectra® Alpha® MD Wipers

TX8670

## Performance Characteristics

Property	Typical Value	Test Method*
Basis weight	170 g/m <sup>2</sup>	1, TM20
Absorbency		
Sorptive capacity	320 mL/m <sup>2</sup>	1, TM20
Sorptive rate	0.5 seconds	1, TM20

## Contamination Characteristics

Property	Typical Value	Test Method*
Particles and fibers		
Particles 0.5–5.0 µm	7.0 x 10 <sup>6</sup> particles/m <sup>2</sup>	1, 2, TM15
5.0–100 µm	155,000 particles/m <sup>2</sup>	1, 2, TM15
Fibers >100 µm	350 fibers/m <sup>2</sup>	1, 2, TM15
Nonvolatile residue		
IPA extractant	0.07 g/m <sup>2</sup>	1, TM1
DIW extractant	0.03 g/m <sup>2</sup>	1, TM1
Ions		
Sodium	0.8 ppm	1, TM18
Potassium	0.11 ppm	1, TM18
Chloride	0.14 ppm	1, TM18

Note: The data in this table represent typical analyses of these wipers at the time of publication. These are not specifications. ITW Texwipe continually refines both its processes and its products.

### \*Test Methods

- 1 – “Evaluating Wiping Materials Used in Cleanroom and Other Controlled Environments,” IEST-RP-CC 004.3, Institute for Environmental Sciences and Technology, Rolling Meadows, IL 2004; [www.iest.org](http://www.iest.org).
  - 2 – “Standard Method for Size-Differentiated Counting of Particles and Fibers Released from Clean Room Wipers Using Optical and Scanning Electron Microscopy,” E2090-00, ASTM International, West Conshohocken, PA, 2000; [www.astm.org](http://www.astm.org).
- TM – Refers to ITW Texwipe Test Method — available upon request, contact ITW Texwipe Customer Service at [www.texwipe.com](http://www.texwipe.com) for a copy.

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