

WHY NOMEX® META-ARAMID

Key Features

- Excellent heat & flame resistance
- High chemical resistance
- Low thermal shrinkage
- Self-extinguishing flame retardant properties
- Soft-hand yields good textile properties

Disadvantages

- Low tenacity
- Low modulus

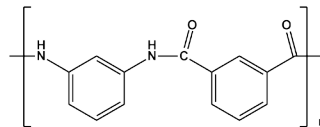
FIBER-LINE® PROCESS FOR NOMEX® META-ARAMID

- Coating
- Twisting
- Precision Winding

FIBER-LINE® NOMEX® PRODUCTS

- Packing Yarn
- Wire Harness Yarn
- Industrial Fabric Yarn

Molecular Structure



Chemical Name

Poly (meta-phenyleneisophthalamide).

Manufacturer

DuPont™.

History

Originally called HT-1, Nomex® was first developed in the 1960's and made commercially available in 1967. First used as fabric for race-car driver suits.

Composition

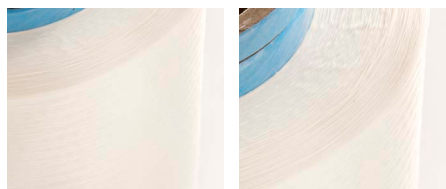
Similar to Kevlar®, Nomex® is an aromatic polyamide. The “Meta” linkage position of the aromatic groups differs from that of Para-Aramids. The chemical bonds are zig-zag in configuration, resulting in a lower tensile and modulus fiber. Nomex® is flexible and higher in elongation however, making it an ideal textile yarn for fabrics.

Common Deniers

200, 1200, 1600, 2400.

Types

T-430: Filament Yarn.



META-ARAMID (HM) BARE FIBER PERFORMANCE

<i>Abrasion Resistance</i>	<i>Yarn on Yarn Abrasion</i>	<i>Ultraviolet (UV) Resistance</i>	<i>Flame Resistance</i>	<i>Chemical Resistance (Acid)</i>	<i>Chemical Resistance (Alkali)</i>	<i>Chemical Resistance (Organic Solvent)</i>
✓	0	✓	✓	✓	✓	✓

CHEMICAL COMPATIBILITY

Chemical Resistance to Acid: Strength loss in H2SO4 below acid dew point.

Chemical Resistance to Alkali: Good at room temperature but degraded by strong alkalis at high temp.

NOMEX® META-ARAMID DATA

Meta-Aramid Properties

<i>Property</i>	<i>UOM</i>	<i>Value</i>
<i>Breaking Tenacity</i>	g/d	5.0
<i>Specific Gravity</i>	Ratio	1.38
<i>Elongation @ Break</i>	%	30.0
<i>Tensile Modulus</i>	g/d	125
<i>Moisture Regain*</i>	%	4.5
<i>Creep**</i>	%	N/A
<i>Shrinkage***</i>	%	.4
<i>Melt Point</i>	°C	None
<i>Decomposition Temp.</i>	°C	TBD

* Equilibrium moisture regain @ 55% RH ** Creep @ 40%-58% ultimate tensile strength *** Shrinkage in dry air @ 177 C for 30 minutes

This data is provided for informational purposes only, and does not constitute a specification. FIBER-LINE® makes no warranty, express or implied, that the product conforms to these values. Contact your FIBER-LINE® representative for exact product details which conform to your specific requirements.

ABOUT FIBER-LINE®

For over 25 years, FIBER-LINE® has provided science-driven expertise that improves the performance and the end-use processing of high performance fibers. Our products enable the search for new energy reserves and extend the life of fiber optic telecommunication cables. They also add important characteristics, such as SWELLCOAT® water-blocking, water repellence, adhesion, color, and wear and UV-resistance to these and many other applications. We believe that our ongoing commitment to protect the environment, to remain at the forefront of fiber and coating technology, and to 'treat others as we want to be treated' will continue to drive the success of our customers, shareholders, and employees.

DUPONT™ PARTNERSHIP

- FIBER-LINE® values its relationships with both its customers and suppliers. Over the last several years, FIBER-LINE® and DuPont™ have formed a strong partnership based upon the synergies between both organizations.
- FIBER-LINE®'s ability to add value to the already attractive properties of both Kevlar® Para-Aramid & Nomex® Meta-Aramid creates more opportunity in the market place to provide solution driven products to a diverse range of markets.
- Because FIBER-LINE® already processes so many different types and deniers of both Kevlar® & Nomex®, we have been authorized by DuPont™ to distribute small quantities of these fibers to an ever-growing customer base.
- Through this program, we hope to introduce businesses of all sizes to the benefit of Aramid fibers. Contact us today for small order quantity orders.



LOCATIONS

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