

SAVIO SOLUTIONS ARAMID / TECHNICAL FIBER YARNS



NOMEX®
 KEVLAR®
 TWARON®
 TECHNORA®
 HERACRON®
 METALLIC CORE FIBRES



SAVIOSOLUTIONS

#ARAMID/ TECHNICAL FIBER YARNS

Aramid fiber is a class of strong synthetic fiber that is widely used for ballistic rated body armor fabric and composites. The growing adoption of aramid in the aerospace industry is expected to be one of the prime drivers for the growth of the market during 2020-2025 period. This reinforced fiber in light weight has the tensile strength five times stronger than the iron of same weight with high heat resistance and low-cut ability. The term “aramid” is short for “aromatic polyamide”. Aramid fibers appear as bright golden yellow filaments. Due to their outstanding strength-to-weight ratio and heat-resistant properties, aramid fibers play an essential role in applications such as composites, the automotive industry, military applications and can be easily integrated into textile

applications in protective wear, offering higher protection against heat, flame, chemicals as well as maximum comfort and absolute reliability.

Features of ARAMID fibers:

- High strength-to-weight ratio
- Exceptional strength and durability
- Core mechanical properties
- Resistant to heat and chemicals
- Good resistance to abrasion
- Non-conductive
- No melting point
- Low flammability
- Good fabric integrity at elevated temperatures

Common Multi-filament Para and Meta Aramid Types and Denier Sizes

Source: www.servicethread.com

	Meta-Aramid	Standard Tenacity Para-Aramid	High Modulus Para-Aramid
Common Denier Sizes	1200	400	1420
		600	
		840	
	1600	1000	2840
		1500	
		2250	
2400	3000	5680	
	7500		
Common Brand Names	Nomex™	Kevlar™ / Twaron™ / Alkex™ / Heracron™	

Meta-Aramids (such as Nomex®) are highly resistant to temperature, chemical degradation, and abrasion. M-aramid fibers generally have a Tenacity of about 5.6g/den, which can compare to Mid-Tenacity nylon and polyester fibers. These fibers are unique in their ability to withstand tensile stress during exposure to flames and temperatures up to 400 deg. C. Para-aramids (such as Kevlar® and alternatives) display high tensile strength (the maximum stress that a material can withstand) and modulus behavior (the tendency of a material to deform when force is applied).

The p-aramid fibers can be manufactured with tenacity around 23g/den and elongation at break ~3.5%. Applications for m-aramids include electrical insulation, protective clothing for firefighters and other first responders, auto racers and military personnel; along with automotive heat shields and aerospace applications. P-aramid applications include ballistics protection, race cars, protective gloves, wire and cable, and hose reinforcement. These two remarkable fibers have been instrumental in protecting the lives of people all over the world, while advancing materials science engineering techniques.

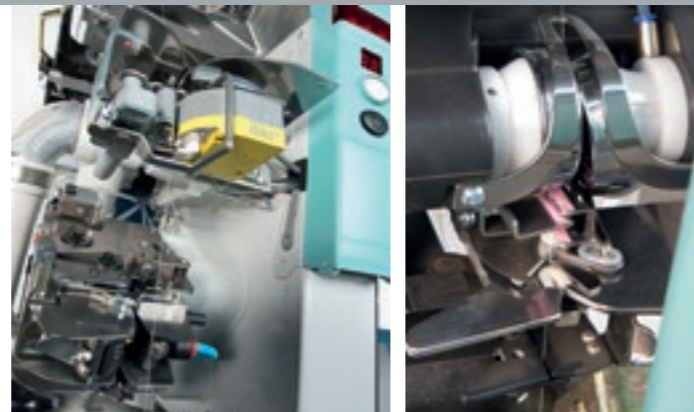
SAVIO SOLUTIONS FOR ARAMID FIBERS PROCESSING



THE SPINNING TECHNOLOGY IS DECISIVE FOR THE TYPE OF YARN TO BE OBTAINED. TO DECIDE WHICH TECHNOLOGY IS BEST SUITED TO YOUR NEEDS, SAVIO OFFERS NUMEROUS SOLUTIONS TO SUPPORT THE QUALITY OF THE FINAL YARN PRODUCT. ACCORDING TO THE COMPLEXITY IN THE PRODUCTION PROCESS OF ARAMID FIBERS, SAVIO PAYS GREAT ATTENTION TO YARN CONTROL DURING THE WINDING PROCESS.

ARAMID KIT ALONG THE YARN PATH

Available on
Eco PulsarS Plus
Polar Evolution



Savio winding units can be equipped with an "Aramid kit" able to overcome these fibers abrasion. Ceramic devices can be embedded to prevent wear of the parts and thus allow an optimal yarn path.

TROPICALIZED ELECTRONIC PARTS

Available on
Eco PulsarS Plus
Polar Evolution



Winding process of aramid and metallic core yarns can be very challenging, especially for temperature changes, mechanical abrasion and metal dust that such yarns produce during process. In order to create a suitable electrical insulation, Savio uses selective conformal coating to protect electronic components against short circuits and from environmental factors they are exposed to. When an electronic board is tropicalized, it resists more effectively to the factors of a severe environment such as: moisture, oxidation, corrosion, humidity, metal dust.

SPLICING TECHNOLOGY

Available on
Eco PulsarS Plus
Polar Evolution



Duo Air Feeding system
Air splicers boasts a Duo Air Feeding system, for yarn tail preparation and splicing. This splitting allows the individual setting of the most appropriate value of air pressure, and makes these splicers able to easily process any different fibers and blends combination.

Jointair splicer
Settings are completely centralized in the PC:
• Fast and simple change
• Consistent uniformity of splice in each different spindle

Main application range:
• Cotton 100% and blends
• Cotton Compact yarns
• Fancy yarns
• Core yarns
• Synthetic and artificial yarns
• Wool 100% and blends
• Silk

INNOVATIVE AND DIVERSIFIED PRODUCT PORTFOLIO FEATURING BEST-IN-CLASS TECHNOLOGICAL KNOW-HOW

Since 1911, Savio has always looked to stay ahead of competition and predict important development across the global textile industry. As a leading supplier of winding machines for manufacturing yarns from short-staple fibers, Savio offers products and services that are tailored to satisfy every customer needs. Savio offer consistent mix of quality and efficiency, providing state-of-the art technological solutions for yarn quality control and allowing best value-for-money proposition.



COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =
= ISO 14001 =



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We reserve the right to modify the characteristics of the machines described herein without prior notice. The data given in this brochure are not intended as a guarantee. Savio machines are equipped with safety devices in compliance with existing regulations.