

FLAME-OUT™ SP

FLAME RESISTANT, SPUN PARA-ARAMID SEWING THREAD



SHORT-TERM **HEAT RESISTANCE** WHEN SECONDS CAN MAKE THE DIFFERENCE.



A&E's Flame-Out™ SP spun para-aramid sewing thread is engineered to provide short-term heat resistance and is performance lubricated to optimize sewing efficiency. Primarily utilized in mattress tapeedging and protective garments, this flame-resistant thread was created as a compliment to the FR barrier system. Non-melting, Flame-Out™ SP displays excellent seam integrity and cut protection, while maintaining superior strength over meta-aramids and other FR products. Flame-Out™ SP is recommended for end use protective and mattress products seeking UL certification. For a comprehensive list of approved industry standards, see our technical product information.

EXCELLENT RESISTANCE TO SHORT-TERM HEAT EXPOSURE

Engineered to withstand temperatures up to 840°F (449°C), this thread provides superior short-term heat resistance.

SUPERIOR STRENGTH

Delivers superior strength over traditional, staple spun, metaaramid threads, allowing for fewer, costly thread breaks and seam failures.

PERFORMANCE LUBRICATION

Manufactured with the correct about of lube with little to no finish build up, this thread ensures an ideal sewing performance, aiding in maximum efficiency.

MATTRESS ● FIREFIGHTER TURNOUT GEAR ● PROTECTIVE APPAREL ● SPECIALTY UNIFORMS ● AEROSPACE ● FILTRATION ● FOOTWEAR ● WORKWEAR













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PRODUCT INFORMATION*

Application	Size		Strength		Recommended
	Tex	Ticket	lbs.	cN	Needle Size
Medium Weight	50	60	10.6	4,697	110/18
	60	50	10.14	4,510	110/18

^{*}Physical characteristics provided are for comparative purposes only. Final determination of suitability is the sole responsibility of the user. All physical data shown is based on current averages and should not be used as minimum requirements.

META-ARAMID AND PARA-ARAMID UL CERTIFICATIONS* Title Standard Standard performance specification for flame resistant and arc rated **ASTM F1506** protective clothing worn by workers exposed to flames and electric arcs. Standard on workwear for protection against hydrocarbon flash fire and CAN/CGSB 155.20 optionally steam and hot fluids. Standard on workwear for forest with corrigendum no. 1. CAN/CGSB 155.22 Standard on protective ensembles for technical rescue incidents. NFPA 1951 Standard on protective ensembles for structural fire fighting and proximity NFPA 1971 fire fighting. NFPA 1975 Standard on emergency services work clothing elements. NFPA 1977 Standard on protective clothing and equipment for wildland fire fighting. Standard on flame-resistant clothing for protection of industrial personnel NFPA 2112 against short-duration thermal exposures from fire. **EN ISO 11611** Protective clothing for use in welding and allied processes. EN ISO 11612:2015 Protective clothing - clothing to protect against heat and flame. EN ISO 15025:2016 Protective clothing - protection against flame. Protective clothing for firefighters - performance requirements for protective EN 469:2020 clothing for firefighting activities.

^{*}Inquire on product designed to pass flammability testing per the following standards: AA 55217B (Berry Compliant Availability), EN149-1, EN469, EN470, EN61340, EN ISO 14116, and NFPA 70E.





WHY CHOOSE A&E?

QUALITY THREAD PRODUCTS SINCE 1891 — A&E is the world's foremost manufacturer and distributor of premium quality industrial and consumer sewing thread, embroidery thread and technical textiles. We provide our customers with the finest products and services, at the highest quality, delivered globally. Our steadfast commitment to superior quality and customer service make A&E the preferred thread supplier. Learn more on A&E's corporate social responsibility and environmental sustainability initiatives, comprehensive product offerings, and global locations at **WWW.AMEFIRD.COM**.



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