

# World of Coats *firefly*

COATS  
*firefly*



FLAME-RETARDANT  
WITH 100% SPUN  
META ARAMID

Product Information



Coats *firefly* is made with spun 100% meta-aramid, offering outstanding protection against heat and flame up to 371°C. Fire retardant protective garments require the highest level of security and durability to protect fire fighters, industrial workers and military combat personnel. Coats *firefly* is a flame retardant sewing thread made from 100% spun meta aramid fibre using a vertically integrated aramid manufacturing system and is uniquely engineered to provide exceptional flame / heat and electric arc resistance. Coats *firefly* is used in a variety of protective wear applications such as fire fighters clothing, work wear uniforms and army combat suits, and is certified to meet all safety regulatory standards and military specifications.

#### Main Uses:

- Flame retardant protective clothing
- Heat and flame protective workwear
- Industrial gloves
- Safety jackets
- Filtration
- Heat insulation



#### Features and Benefits:

- Made from 100% meta-aramid fibre with a high melting point of 371°C
- Exceptional flame and heat resistance; does not melt or drip up to the melting point
- Unique spinning quality with 5 times lower fault levels and 100% traceability
- Special dyes used for good wash fastness and minimal lot to lot colour variation
- Flame resistance and colour survive multiple cycles of laundering and dry cleaning
- Unique lubricated finish for excellent sewability and seam integrity

#### Approved by Underwriters Laboratory and other accredited organizations for all safety standards:

- Fire Fighting regulations NFPA 1971, 1975, 1977 and EN469
- Industrial Personnel protection NFPA 2112, EN ISO 14116, EN ISO 11612 (industrial heat and flame) and EN ISO 11611 (welding)
- Electrical Arc Resistance NFPA 70E, EN470, EN149-1, EN61340
- US Military spec AA 55217A Type I

## World of Coats

- Coats is the world's leading industrial thread business with a 200 year history of pioneering innovation.
- Providing complementary and value added products and services to the apparel and footwear industries.
- Applying new techniques to manufacture and supply engineered threads and yarns to a wide range of speciality segments.
- With manufacturing plants in over 70 locations and sales and distribution in many more, Coats is uniquely placed to serve your thread needs anywhere in the world.
- Our range of value adding services and tools is being expanded to help customers adapt and meet the challenges of our industry today. For example, the award winning 'Coats Colour Express' sampling service enables a fast and accurate global thread sampling capability and is backed by Coats' well known advanced colour management systems.

#### One colour range. One specification. Worldwide.

Coats operates to a global specification for Coats *firefly* with quality audited by a centrally located team.

[www.coatsindustrial.com](http://www.coatsindustrial.com)



## Product Guidelines:

100% spun meta-aramid thread range for American NFPA and military AA55217A specs

Tex No.	Ticket No. (Nm)	Ply	Average Strength		Elongation % Maximum	Recommended Needle Size*	
			cN	Grams		Singer	Metric
24	120	2	588	600	24	10 - 12	60 - 80
27	110	2	735	749	26	11 - 14	75 - 90
40	70	3	931	949	28	12 - 14	80 - 90
60	50	3	1,568	1,599	28	14 - 18	90 - 100
80	35	4	2,058	2,099	28	16 - 19	110 - 130
90	30	4	2,940	2,998	28	18 - 22	120 - 140

100% spun meta-aramid thread range for European EN specs

Tex No.	Ticket No. (Nm)	Ply	Average Strength		Elongation % Min - Max	Recommended Needle Size*	
			cN	Grams		Singer	Metric
30	100	2	1,000	1,019	15 - 25	12 - 14	80 - 90
40	70	3	1,500	1,529	17 - 27	14 - 18	90 - 110
70	40	3	2,300	2,345	17 - 27	16 - 19	100 - 120

\* Needle size recommendations are a guide only and ultimately depend on the sewing application. Since conditions and applications vary considerably in the use of thread, the thread user should assure herself or himself by preliminarily testing that the thread is suitable for the end use intended. Technical information listed above is based on current averages and should be taken only as indicative.

Make up (cone in metres): 5000, 10000, 5486, 10973. Full colour range available



### Physical and chemical properties of flame-retardant with 100% spun meta aramid:

#### Thermal Properties:

- Excellent heat resistance up to 371°C
- Does not melt or drip
- Self-extinguishes on removal of flame

#### Chemical Properties:

- Excellent resistance to oils and petro chemicals
- Fair resistance to bleach
- High abrasion resistance

#### Coats firefly fastness properties:

- |                         |                       |         |
|-------------------------|-----------------------|---------|
| • Washing at 95°C       | (DIN EN ISO 105 C10D) | Grade 4 |
| • Water Fastness        | (DIN EN ISO 105 E01)  | Grade 4 |
| • Perspiration Fastness | (DIN EN ISO 105 E04)  | Grade 4 |
| • Rub Fastness          | (DIN EN ISO 105 X12)  | Grade 4 |
| • Hypochlorite Fastness | (DIN EN ISO 105 N01)  | Grade 4 |

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