COATS

PERFORMANCE WEAR

ABOUT COATS

We are global leaders in the design and supply of industrial threads, zips, engineered yarns and trims. Our comprehensive range of products are designed to deliver customers' desired strength and performance characteristics and are supported by a suite of value added services to help customers improve efficiency and solve problems. As an innovator and pioneer, Coats is the first choice for manufacturers of high quality textiles.

PERFORMANCE WEAR

- Performance Wear covers a wide variety of garments ranging from protective clothing and workwear to uniforms and gloves. These garments are expected to perform in differing, demanding conditions like heat plus other end use applications including bullet-proof requirements, arc resistance and cut resistance,.
- Innovative materials made from meta-aramids, para-aramids or blends, provide final garments improved functionality and durability coupled with better comfort and, in some cases, a sense of fashion.
- Coats comprehensive and cost-effective range of threads, engineered yarns and zips, trims and tapes for performance wear meet important industry norms and standards as well as deliver consistent superior quality and value - globally.

	Heat & Flame Protection EN 469 Fire Fighters, NFPA 1971, NFPA 1975, NFPA 1977	Heat & Flame Protection EN ISO 1611 Welding, NFPA 2112	Heat & Flame Protection EN ISO 11612 Industrial Heat and Flame	Heat & Flame Protection EN ISO 14116 Industrial Heat and Flame	Electro Static Protection EN 1149	Chemical: Acid Protection	Chemical: Alkali Protection	Clean Room Protection: Silicone Free	Cut & Abrasion Protection	Foul Weather Protection	Workwear / Uniforms	Electric ARC Protection NFPA 70E, EN 470, EN 149-1, EN 61340	US Military Specifications
For Protective Clothing													
Coats Pyrostar	★	★	★	★									
Coats Firefly	★	★	★	★									★
Coats Flamepro												★	
Coats Flame Master	★	★	★	★									★
Coats Protos Plus	★								★				★
Coats Protos Fil	★								★				
Coats Protos Steel	★								★				
Coats Helios*	★		★	★					★				
Coats Helios K	★								★				★
Coats Aptan							★						
Coats Epic SIF (antisil)								★					
Coats Gral AW (anti-wick)										★			
Coats Gral AST (anti-static)					★								
For Workwear / Uniforms													
Coats Dual Duty											★		★
Coats Epic						★					★		★
Coats Astra						★					★		

**Helios sewing thread is suitable for use in heat and flame protective clothing according to EN 469, EN ISO 11612 and EN ISO 14116. It is not suitable for use in electrician and welder protective clothing due to the relatively low vertical resistance (< 105 Ω) the material cannot keep down the possibility of electrical shock by contact with live electric conductors.*

COATS PERFORMANCE WEAR
FOR PROTECTIVE CLOTHING

Flame, heat or splashes of molten metal or chemicals – when working under extreme conditions Coats threads, engineered yarns and zips provide maximum protection – made to protect.

Coats Pyrostar
- 100% longstaple spun m-aramid, specially finished
- Outstanding heat and flame protection, up to 370°C
- EN 469, EN ISO 11611, EN ISO 11612 and ISO EN 14116 approved
- Wide range of colours
- Excellent strength, durability and seam appearance
- Specified for fire fighter uniforms, public authority garments and flame retardant embroidery

Coats Firefly
- 100% spun m-aramid
- Outstanding heat and flame protection, up to 370°C
- EN469, EN ISO 11611, EN ISO 11612, EN ISO 14116 NFPA 1971, 1975, 1977, 2112 approved
- Wide range of colours
- Excellent sewability and seam integrity
- Specified fire fighters clothing, work wear uniforms and army combat suits
- US Military Spec AA55217

Coats Flame Master
- Polyester corespun with polyester wrap
- Excellent permanent flame protection
- EN 469, EN ISO 11611, EN ISO 11612 and ISO EN 14116 approved
- Most extensive shade range
- Superior sewability
- Recommended for firefighters, welders, industrial workers, military and public order personnel

Coats Protos Plus and Protos Fil
- Coats Protos Plus: longstaple spun p-aramid
- Coats Protos fil: continuous filament p-aramid
- Outstanding strength for protective apparel providing optimum cut and puncture resistance
- Ideal for fire fighter wear, safety shoes, gloves and bullet proof vests
- High temperature limit up to 400°C
- Coats Protos Plus: US Military Spec AA55195
- Coats Protos fil: US Military Spec AA55220

Coats Protos Steel
- Constructed with a special steel core and a para-aramid wrap
- High temperature limit up to 1000°C
- Outstanding strength
- Ideal for welding blankets,fire curtains, heat and flame protective carpets and industrial heat and flame protective clothing

Coats Flamepro
- Innovative family of flame resistant electric arc and cut resistance yarns
- Large selection of fibres
- Ability to blend multiple fibres

Coats Helios
- Steel wires wrapped with a flame retardant cotton cover
- High temperature limit up to 600°C without any mechanical strain
- EN 469, EN ISO 11612 and EN ISO 14116 approved
- Provides good sewing performance

Coats Helios K
- Steel wires wrapped with a p-aramid cover
- High temperature limit up to 1000°C without any mechanical strain
- Outstanding strength
- Ideal for welding blankets and curtains, Insulation jackets and Industrial heat & flame protective clothing

Coats Aptan
- 100% continuous filament nylon 6,6
- Excellent high speed sewing
- Excellent abrasion resistance

Coats Epic SIF (antisil)
- Polyester corespun with polyester wrap
- Silicone free
- For use in seams where silicone is undesirable, e.g. paint spray coveralls

Coats Gral AW (anti-wick)
- Made from continuous filament polyester with an anti-wick finish
- Specially designed to prevent wicking of water through needle holes and along the thread by capillary action
- High degree of water resistance
- Recommended for use in seams where water repellency is called for

Coats Gral AST (anti-static)
- Made from continuous filament polyester in combination with a conducting material
- Specially designed to prevent static build-up in garments, footwear etc.
- Highly recommended for garments for electronic assembly line staff

COATS OPTI ZIPS

- Opti M Firefly - flame retardant zip made up of 100% meta-aramid tape and metal elements. This zip gives outstanding permanent heat and flame protection up to 370°C. Opti M Firefly meta-aramid metal zips are tested and certified according to standards EN ISO 15025:2002, EN 469, EN ISO 11611, EN ISO 11612 and ISO EN 14116. They meet most of our customers' requirements for 20 washes as per BS 5651:1989 and also meet standards DIN 3416, 3418, 3419 and BSI 3084.

- Opti S Flame Master and Opti M Flame Master – textile tapes based on special molecular modified polyester, rendering permanent flame retardant properties.

COATS SIGNAL

Reflective and Flame Resistant Tapes and Heat Transfer Films

- Coat Signal RD cotton is a flame resistant silver retro reflective tape for all types of flame resistant high visibility applications.

- Coats Signal RD aramid is a premium flame resistant retro reflective tape designed for maximum heat and flame protection and tough industrial laundry conditions.

- Coats Signal RD lime-silver-lime/orange-silver-orange are flame resistant aramid based reflective tapes that have combined retro reflective and fluorescent elements for maximum visibility at night time and during daytime and low light conditions.

COATS CONNECT

Hook and Loop

- Coats Connect RD hook and loop fasteners are produced from 100% polyamide with flame resistant properties. They are designed for a broad range of industrial applications where flame protection is required and meet the requirements of key flammability standards.

COATS PERFORMANCE WEAR
FOR WORKWEAR / UNIFORMS

Frequent and repeated industrial washing and the daily stress of performing under punishing conditions – you need Coats threads and zips – **made to work.**

Coats Dual Duty
- Polyester corespun with cotton wrap
- Delivers excellent sewing performance in the most demanding applications
- High tenacity polyester filament core allows the use of finer thread sizes improving seam appearance without compromising seam strength
- Outstanding abrasion resistance for demanding workwear applications

Coats Epic
- Polyester corespun with polyester wrap sewing thread
- Ensures excellent stitch formation and good looking seam appearance
- Finished with a specially formulated lubricant delivering excellent sewing performance at low tension under the most demanding of conditions
- Stronger, more durable, with a high strength core which allows use of finer threads and needles without compromising strength compared to staple spun threads
- Excellent colour fastness performance level

Coats Astra
- Meets the highest environmental and safety standards and is 100% staplespun polyester
- Makes durable, long-lasting seams which look good throughout the sewn product lifetime
- Dependable sewing performance where cost matters
- High level of colour fastness

Technical Data -
North America, Canada, Mexico, Dominican Republic

Coats Threads and Engineered yarns for Performance Wear	Description	Tex. No.	Ticket No.	Average Strength (cN)	Elongation (%) Max	Recommended Needle Size (Singer)
Coats Firefly	Staple spun meta-aramid	24 27 40 60 80 90	120 110 75 50 40 35	699 735 1285 1936 2601 2998	16-32 16-32 25-37 25-37 25-37 25-37	10-12 11-14 12-14 14-18 16-19 18-22
Coats Protos	Staple spun para-aramid	45 60 80 90 105	70 50 40 35 30	5058 4800 5957 7246 8971	5 5 5 5 5	12-14 14-18 16-19 18-22 19-23
Coats Protos Fil	Continuous filament para-aramid	90 135 350	35 20 9	15625 20893 49058	5 5 5	19-22 21-23 26-29
Coats Protos Steel	Special steel core and para-aramid wrap	90	30	8500	6	120-140
Coats Helios C	Steel wires wrapped with a flame retardant cotton cover	210	13	2700	16	130-160
Coats Helios K	Steel wires wrapped with a para-aramid cover	210	13	6000	10	130-160
Coats Flamepro	Family of flame resistant, electric arc and cut resistant yarns	Offered in various fibres, blends and counts. Contact marketing@coats.com for more information				

Since conditions and applications vary considerably in the use of a product, the customer and/or user should assure herself or himself that the product meets end customer requirements and is suitable for the intended end use. Coats accepts no liability for unsuitable or improper use or application of products.

Information provided above is based on current averages and should be taken only as indicative. Coats accepts no liability for the preciseness and correctness of the information provided.

Product information sheets are updated from time to time, please be sure you are referring to the most recent publication. Coats supports customers with advice on individual applications on request; if you have any questions or concerns, please contact us.

Technical Data - Europe, Asia, Middle East

Coats Threads and Engineered yarns for Performance Wear	Description	Tex. No.	Ticket No.	Article Code	Length (m)*	Average Strength (cN)	Elongation (%) Max	Recommended Needle Size (metric)
Coats Pyrostar	Long staple spun meta-aramid	135 70 40	20 40 70	SAD3020 SAD5040 SAD1070	1000 2500 5000	5800 2750 1600	17-27 17-27 16-26	130-160 100-120 90-100
Coats Firefly	Staple spun meta-aramid	70 40 30	40 70 100	9600040 9700070 9700100	2500 5000 5000	2300 1500 1000	17-27 17-27 15-25	100-120 90-110 80-90
Coats Flame Master	Polyester covered core-spun permanent flame protection	70 40	40 70	2392040 2395070	2500 5000	3040 1960	18-25 18-24	100-120 90-100
Coats Protos Plus	Longstaple spun para-aramid	80 60 40	35 50 70	SAE1035 SAE5050 SAE8070	3000 3000 5000	10600 8000 4900	3-5 3-5 3-5	110-130 100-110 90-100
Coats Protos Fil	Continuous filament para-aramid	135 90	20 30	SAE6020 SAE7030	2000 2500	27000 18000	3-5 3-5	130-160 120-140
Coats Protos Steel	Special steel core and a para-aramid wrap	90	30	SZOK030	2000	8500	4-6	120-140
Coats Helios	Steel wires wrapped with a flame retardant cotton cover	210 150	13 18	0900013 0900018	2000 2000	2700 2100	8-18 15-25	130-160 120-140
Coats Helios K	Steel wires wrapped with a para-aramid cover	210	13	0639013	2000	6000	6-10	130-160
Coats Aptan	Continuous filament nylon	70 45 35	40 60 80	S054040 S064060 S066080	3000 6000 6000	4700 3210 2160	16-29 18-32 18-32	100-120 90-100 75-90
Coats Epic SIF	Polyester covered corespun free of silicone	40 30	80 100	3045080 3047100	20000 50000	1960 1490	18-24 17-22	80-100 80-90
Coats Gral AW	Continuous filament polyester thread with a water repellent finish	60 40 35	40 60 80	1420040 1420060 1420080	1000 1000 1000	4230 2620 2170	17-22 16-22 16-22	100-110 90-100 90-110
Coats Gral AST	Continuous filament polyester in combination with a conductive material	135 80 35	20 35 80	S2A2020 3450030 S2A4080	830 g 600 g 4000	7030 5700 1800	18-25 15-26 15-26	120-140 110-130 80-100
Coats Dual Duty	Polyester corespun with cotton wrap	60 40 24	50 75 120	1569050 1569075 1569120	5000 5000 5000	2840 1860 1040	18-24 18-24 18-22	100-120 90-100 75-90
Coats Epic	Polyester covered corespun	60 40 30 24 21	50 80 100 120 150	2994050 2994080 2994100 2994120 2994150	5000 5000 5000 5000 5000	3040 1960 1490 1190 980	18-25 18-24 17-22 17-22 17-22	100-120 75-90 75-90 70-90 65-75
Coats Astra	Staple spun polyester	40 27	80 120	8754080 8754120	5000 5000	1410 990	13-20 13-20	75-90 75-90

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