

Coats® Protos™

Coats Protos is a high strength, high modulus fire retardant sewing thread made from 100% para-aramid fibre. Coats Protos offers exceptionally high strength retention even at elevated heat ageing temperatures and can be used to stitch durable protective seams that can withstand burning flames, ballistic resistance and exposure to high temperatures. Coats is the only thread manufacturer that spins, twists, dyes and finishes the para-aramid fibre in a vertically integrated aramid manufacturing system to produce threads with excellent sewability and in difficult-to-dye colours.

COATS
protos



FIRE RETARDANT
STAPLE SPUN
PARA-ARAMID

WHY CHOOSE PROTOS?

- Made from para-aramid fibre with a high melting point of 450°C
- Stronger than steel, para-aramid is a high tenacity, high modulus fibre
- High retained strength after heat ageing at elevated temperatures
- Unique spinning capability for low fault para-aramid yarn
- Low elongation
- One of the few thread manufacturers that can dye para-aramid and hence deliver thread in a range of shades
- Meets Coats restricted substance list

MAIN USES

- Mattress tape edge seams
- Fire resistant and cut and slash industrial gloves
- Insulation and engine covers
- High temperature air bags
- Aerospace
- Bullet-proof vests and ballistic body armour
- Military protective garments



Coats Protos

PRODUCT RANGE

TEX	Ticket	Ply	Strength cN	Elongation % Min - Max	Needle Size Metric
40	75	2	3000	3 - 5	75 - 90
45	60	2	10500	3 - 5	80 - 90
50	60	3	4444	2 - 6	80 - 90
60	50	3	4800	3 - 5	90 - 110
80	40	4	6000	3 - 5	100 - 120
90	30	5	18000	2 - 6	110 - 140
105	30	6	20100	2 - 6	120 - 160

THERMAL PROPERTIES

Decomposes at 450°C - Does not burn but self-extinguishes on removal of flame

High modulus low elongation fibre

Stronger than steel

Low ultra violet resistance, loses strength on exposure to prolonged sunlight

Excellent cut and slash resistance

CHEMICAL PROPERTIES

Excellent resistance to oils and petro chemicals

Excellent chemical resistance

FASTNESS PROPERTIES

Wash fastness (95°C):	ISO 105 C04 (DIN 54011)	Grade 3
Rub fastness:	ISO 105 X12 (DIN 54021)	Grade 3



FIRE RETARDANT
STAPLE SPUN
PARA-ARAMID



Coats Protos

EXPERT REAL WORLD SUPPORT

The final cost of any product also includes hidden costs, fuelled by the methods and tools applied to it. Our experts know exactly how to reduce those costs, save time and increase productivity.



Seamworks

Install our Seamworks software to accurately calculate costs prior to production, putting an end to the risk of over or under ordering materials, and incurring unnecessary extra costs. The Seamworks tool is provided with installation, training and ongoing support included.



One to One Visits

There's no need to come to us, our experts will travel to your site. In person, online or via the phone, our trained consultants deal with the kind of issues any busy factory may face, providing a solution for today and a blueprint for future efficiency.



Training and Presentations

From product selection to stitch formation, the use of colour to solutions for common production issues, we take the learning gathered through years of hands on experience and present it in the form of high impact seminars, workshops and presentations.



Embroidery Service Centre

Our Embroidery Service Centre makes embroidering a design much easier, increasing productivity at the same time as enhancing the design itself. Email the design and any problematic issues to us and our technicians will email the improved design right back.

To drive your hidden costs down, talk to Coats. From product audits in pre-production to the latest technical bulletins, we'll provide support that achieves measurable results.

For more information, talk to your Coats representative today or visit coats.com

OTHER PRODUCTS IN THE PROTOS RANGE

To complement the Protos range, we also have a selection of specialist Protos threads. Each of these combines the superior properties of the Protos product with additional benefits specific to the end use.

Product Name	Description
Protos Binder	This slow-shrink, para-aramid yarn is designed to withstand high stranding speeds and makes an excellent dual-end binder in loose tube cables.
Protos Fil	High-strength, fire retardant para-aramid thread that is recommended for mattress tape edge seams or products exposed to high external heat.
Protos Ripcord PF	Para-aramid yarn that is engineered with a special twisting technology that improves its grip and offers easier cable ripping.
Protos Steel	Para-aramid wrapped steel core yarn that can withstand temperatures up to 1000°C, making it ideal for textile products that are exposed to high heat.

Special use Protos products are typically available across a select range of ticket sizes and technical information will in some cases vary from the above table.



**FIRE RETARDANT
STAPLE SPUN
PARA-ARAMID**



Since conditions and applications vary considerably in the use of a product, the customer and/or user should assure themselves 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 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 for 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. © Copyright reserved 2018

