

Coats® Helios S™

Coats Helios S is made from Ultra High Molecular Weight Polyethylene (UHMWPE) and commercially available premium gel-spun, self-lubricating thread. It is manufactured with a new generation raw material that is used in highly demanding aerospace and military applications.

Coats Helios S is a highly abrasion-resistant, cut-proof and an extremely light thread. These performance characteristics make Coats Helios S an ideal thread for a range of industrial products.

The main applications are aerospace, blimps and parachutes, boat sails, body armour and workwear, cut-proof footwear, gloves and filtration.

COATS
helios s



ULTRA HIGH
MOLECULAR WEIGHT
POLYETHYLENE

WHY CHOOSE HELIOS S?

- Coats Helios S is a highly abrasion-resistant, cut-proof and an extremely light thread. These performance characteristics make Coats Helios S an ideal thread for a range of industrial products.
- Coats Helios S has exceptional strength and rigidity. Size for size, Coats Helios S is 10 times and 40% stronger than high grade steel and aramids respectively.
- Coats Helios S delivers unique properties including high tensile strength and modulus, combined with cut-resistance.
- Coats Helios S has low density - less than 1 gram per cubic centimetre, making it float on water - giving it a high strength to weight ratio.
- Coats Helios S has extremely high abrasion resistance, yet is soft and durable.

MAIN USES

- Aerospace
- Blimps and parachutes
- Boat sails
- X-ray garments
- Body armour and workwear
- Cut-proof footwear and gloves
- Filtration
- Fishing lines
- Kite flying strings
- Military equipment
- Security bags
- Specially engineered yarns



Coats Helios S



PRODUCT RANGE

| Tex | Ticket | Length | dtex/ply | Strength cN | Elongation % (Min-Max) | Needle Size Metric |
|-----|--------|--------|----------|----------------|---------------------------|-----------------------|
| 50 | 60 | 1750m | 250 x 2 | 10500 | 4 – 7 | 90 – 100 |
| 70 | 40 | 1250m | 250 x 3 | 15000 | 4 – 7 | 90 – 100 |
| 120 | 20 | 750m | 440 x 3 | 30100 | 4 – 7 | 100 – 120 |

THERMAL PROPERTIES

Thermally stable at temperatures ranging from -150°C to +110°C (melts at 150°C)

CHEMICAL PROPERTIES

| | |
|---|---|
| Solvents: | Chemically inert - does not react with most substances |
| Environment: | Extremely durable and is unaffected by salt, water and other atmospheric conditions |
| UV rays: | Highly resistant to UV radiation |
| Insects / microorganisms (mildew, rot): | Highly resistant to micro-organisms |

EXPERT REAL WORLD SUPPORT

The final cost of any thread 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.



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 yarn 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.



Innovation Hub

Collaborate directly with expert R&D technologists at our Innovation Hub to create pioneering and tailored solutions for products ranging from Performance Materials to Apparel and Footwear. Equipped with state-of-the-art technology, we quickly turn ideas into prototype designs ready for manufacturing.

To drive your hidden costs down, talk to Coats. From thread 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 www.coats.com/helios-s



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 will take no responsibility or liability for any machine damage caused by the use of this product and it is important that the factory is fully informed of the preventative care and usage of Coats Helios S. 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 2021