



# Threads for outdoor and performance

The Coats AS range of thread is designed to meet the needs of outdoor performance sportswear, woven outerwear and fashion jackets.

In drier atmospheric conditions the lower static and lower dynamic friction values of Gral AS and Epic AS minimise the attraction of down towards the needle, helping to prevent down leakage through needle holes. The lower dynamic friction values of Gral AS and Epic AS also enhance the uniformity of the stitch formation allowing neat, well balanced seams.



Epic AS is a highly versatile sewing thread made from 100% polyester. The construction of the thread, with the continuous filament polyester core and soft staple polyester wrap, delivers high seam strength and excellent performance.

Art / Tkt	Tex	Ticket	Length	Strength cN	Elongation % Min - Max	Needle Size Metric
2S94 180	18	180	5000m	780	17 - 22	65 - 75
2S94 150	21	150	5000m	980	17 - 22	65 - 75
2S94 120	24	120	5000m	1190	17 - 22	70 - 90
2S74 100	30	100	4000m	1490	17 - 22	70 - 90
2S74 080	40	80	4000m	1960	18 - 24	70 - 90
2S93 050	60	50	3000m	3530	18 - 25	100 - 120

\* Please contact your local Coats office should you require additional thread sizes.



Gral AS is a 100% polyester continuous filament sewing thread with a smooth surface, creating a clean seam appearance.

Art / Tkt	Tex	Ticket	Length	Strength cN	Elongation % Min - Max	Needle Size Metric
13SK 200	12	200	3000m	920	16 - 22	65 - 75
13SK 120	21	120	3000m	1420	16 - 22	75 - 90
13SG 080	35	80	2000m	2170	16 - 22	75 - 90

\* in EMEA markets please contact your local Coats office should you require thread samples of Gral AS in Tkt 200, 120, 080.

## Features and Benefits:

- Creates a smoother, softer handle to the sewn seam when compared with conventional sewing threads
- Allows lower tension settings, improving the stitch balance and providing neater and flatter seams
- Excellent static and dynamic friction values reduce leakage of "down" through the needle hole
- Provides solutions for oil-sensitive materials such as CO fabrics
- Allows for improved sewing performance on complex materials due to its higher heat shield
- Provides outstanding sewability
- The reduced frictional values allow smoother thread pull off through the sewing machine helping to deliver longer lasting seams

Please refer to the Product Information sheets for Gral (apparel) and Epic for the complete product details:

<http://www.coatsindustrial.com/en/gral-for-apparel>

<http://www.coatsindustrial.com/en/epic>

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.