

World of Coats *gral*

Coats *gral* by Barbour is a lubricated polyester thread made from pre stabilised high tenacity continuous filament Polyester. Coats *gral* is an excellent sewing thread for all types of leather and offers good abrasion resistance. The soft finish with a superior low friction lubrication reduces the effects of needle heat and abrasion. Coats *gral* with its higher breaking strength and optimum stretch characteristics produces an attractive, fine seams on leather footwear and leather goods.

Main Uses:

- Leather Footwear
- Leather Goods
- Soft Luggage
- Automotive Interiors
- Sporting Goods
- Multineedle Quilting & Mattresses
- Seat Belts, Air Bags
- Cargo Slings, Fasteners
- Industrial Filters
- Geotextiles & Technical Textiles



Features and Benefits:

- Coats *gral* by Barbour is a high tenacity polyester thread. The higher strength to fineness ratio makes very fine seams possible in the footwear.
- Coats *gral* by Barbour is treated with a specially formulated lubricant that offers excellent frictional characteristics during high speed sewing.
- Controlled stretch characteristics yield excellent sewability with tight, firm stitches on multiple leather surfaces.
- Coats *gral* by Barbour exhibits excellent loop formation, consistent stitch formation and neat seam appearance.

World of Coats

- Coats is the world's largest supplier of industrial sewing threads & crafts products. We are proud of our tradition of landmark innovations in threads, colour technology and manufacturing processes, many of which have become global industry standards.
- With manufacturing plants in over 40 locations and sales and distribution network in more than 60 countries, Coats is uniquely placed to serve your thread needs anywhere in the world.
- Our state of the art Coats Colour Management System (CCMS) enables exact sample matching and colour approval almost instantaneously between locations around the globe.

One specification. Worldwide.

Coats operates to a global specification for Coats *gral* by Barbour with quality audited by one centrally located team. We have the unique capability of consistent product offer, innovative services, creative ideas and superior technical solutions.

COATS
gral
by Barbour



LUBRICATED
TWISTED
POLYESTER

Product Information



www.coats.com

COATS
gral
by Barbour



LUBRICATED
TWISTED
POLYESTER

Product Information



www.coats.com

Tex. no.	Ticket	Total Dtex	Ply	Target Strength in gms.	Elongation% min - max	Recommended needle size*	
						Singer	Metric
35	80	390	3	2180	16 - 19	65-75	9-11
45	60	502	3	3000	16 - 19	65-80	9-12
70	40	759	3	4400	17 - 20	80-90	12-14
105	30	932	3	5300	17 - 20	90-110	14-18
135	20	1545	3	8900	20 - 23	110-120	18-19
210	15	2400	3	12650	22 - 27	130	21
270	10	3383	3	17950	23 - 27	140	22
350	8	3870	3	20500	24 - 28	160	23
450	6	6210	3	30000	24 - 30	180	24

(*Needle size recommendations are a guide only and ultimately depend on the sewing application)

Nonwick: The above products are available in a special water-repellent finish. Nonwick treatment is intended to prevent the capillary action of water through a sewn seam.



Physical and chemical properties of Polyester:

Thermal Properties

- Melts at 260° C, softens at 220° - 240° C
- Shrinkage is less than 1 % @ 150° C

Chemical Properties

- Mineral Acids Resistant to most mineral acids
- Alkalis Essentially unaffected by weak alkalis but less resistant to strong alkalis at high temperatures
- Organic Solvents Generally unaffected, but soluble in some phenolic compounds
- Bleaching Unaffected.
- Insects/Microorganism (Mildew, rot) Unaffected
- Moisture Regain Approximately 0.4 %



Coats *gral* fastness properties

Wash Fastness	ISO 105 C03	Grade 3 - 4
Rub Fastness	ISO 105 X 12	Grade 3 - 4
Water Fastness	ISO 105 E01	Grade 3 - 4



These fastness grades represent minimum performance levels. For Special fastness requirements, reference should be made to Coats Technical Services.

