

COATS
gral for
apparel



CONTINUOUS
FILAMENT
POLYESTER

Coats Gral for Apparel

Coats Gral is a continuous filament polyester thread made from pre-stabilised high tenacity polyester and is the thread of choice for multiple end-uses.

The soft finish with superior low friction lubrication reduces the effects of needle heat and abrasion.

WHY CHOOSE GRAL?

- Gral is ideal for neat, unobtrusive stitching
- In the finer sizes used for blind stitching and hemming, Gral is semi-transparent and blends into the fabric colour, reducing the frequency of thread changes
- A unique stabilising process results in an extremely even stitch balance
- Engineered for sewing at the highest speeds
- High level of colour fastness even in demanding washing conditions
- Certified to Öko-Tex Standard 100, class I, the most stringent class covering textile items for babies and toddlers
- Meets Coats restricted substance list

MAIN USES:

- Blindstitching and hemming
- Preventing down and synthetic filling loss for quilting operations
- High speed multi-head quilting operations
- Serging on fine woven fabrics such as jacket linings

PRODUCT RANGE

Art / Tkt	TEX	Ticket	Length	Strength cN	Elongation % Min - Max	Needle Size Metric
1345 300	10	300	5000m	630	17 - 21	55 - 70
1345 200	12	200	5000m	920	16 - 22	65 - 75
1345 180	14	180	5000m	920	17 - 21	65 - 75
1345 120	21	120	5000m	1420	16 - 22	75 - 90
1345 080	35	80	5000m	2170	16 - 22	75 - 90



Coats Gral for Apparel

THERMAL PROPERTIES

Melts at 250 - 260°C, softens at 220 - 240°C

Shrinkage less than 2.5% @ 150°C

CHEMICAL PROPERTIES

Mineral acids:	Resistant to most mineral acids
Alkalis:	Essentially unaffected by weak alkalis, but less resistant to stronger alkalis, especially at higher temperatures
Organic solvents:	Generally unaffected, but soluble in some phenolic compounds
Bleaching:	Unaffected
Insects / microorganisms (mildew, rot):	Unaffected
Laundering / dry cleaning:	Unaffected
Moisture regain:	0.4%

FASTNESS PROPERTIES

Washing at 60°C	(ISO 105 C10:2006 C(3))	Grade 4
Water Fastness	(ISO 105 E01:2010)	Grade 4
Rub Fastness	(ISO 105 X12:2001)	Grade 4
Hypochlorite Fastness	(ISO 105 N01:1993)	Grade 4
Dry Cleaning Fastness	(ISO 105 D01:2010)	Grade 4
Perspiration Fastness	(ISO 105 E04:2009)	Grade 4
Artificial Light Fastness	(ISO 105 B02:1994)	Grade 4



CONTINUOUS
FILAMENT
POLYESTER



Coats Gral for Apparel

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.



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 thread 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 thread audits in pre-production to the latest technological 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 GRAL RANGE

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

Product Name	Description
Gral (Coarse Sizes)	High tenacity sewing thread with excellent abrasion resistance, ideal for sewing leather footwear.
Gral AS	Engineered for use as needle thread to prevent down migration during the sewing and lifetime of padded down jackets.
Gral AST Anti-static	Features a metallic conductive component which detracts electrical charge to prevent static build-up.
Gral AWF (Apparel Sizes)	Free of perfluorinated compounds (PFCs), best anti-wick thread choice for no-compromise, premium water-resistant outdoor wear and rainwear.
Gral AWF (Coarse Sizes)	Free of perfluorinated compounds (PFCs), best anti-wick thread for no-compromise, water-resistant outdoor footwear and accessories.
Gral Multicolour	An attractive and varied multicoloured continuous filament polyester sewing thread for eye-catching stitching.

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



CONTINUOUS
FILAMENT
POLYESTER

