

COATS
gral awf



100%
POLYESTER

Coats Gral AWF (Apparel Sizes)

Coats Gral AWF has a specially formulated finish that delivers a high degree of water resistance to seams on outdoor wear and rainwear. Its PFC-free, anti-wick finish is kinder to the environment and helps prevent water from being taken up by the thread.

Made from 100% continuous filament polyester, our Gral AWF has a high strength-to-fineness ratio which makes it possible to sew fine seams without compromising on strength. Its lubricated finish enables it to withstand tough sewing environments and gives seams a smooth appearance.

WHY CHOOSE GRAL AWF (APPAREL SIZES)?:

- Gral AWF is a 100% polyester continuous filament
- Its high breaking strength and optimum stretch characteristics produce smooth and attractive seams on leather footwear
- The PFC-free anti-wick finish inhibits the capillary effect, thereby ensuring that no water is taken up by the thread
- When the correct sewing tension is used, the transport of water through the needle hole is prevented

MAIN USES:

- Outdoor wear
- Rainwear
- Workwear

PRODUCT RANGE

Art / Tkt	TEX	Ticket	Length	Strength cN	Elongation % Min - Max	Needle Size Metric
F322 200	12	200	3000m	920	17 - 21	65 - 75
F322 120	21	120	3000m	1420	16 - 22	75 - 90
F320 080	35	80	2000m	2170	16 - 22	90 - 100

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



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THERMAL PROPERTIES

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

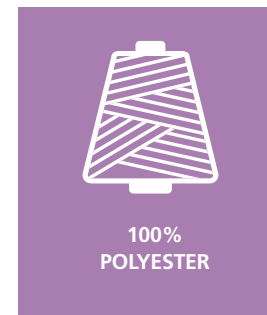
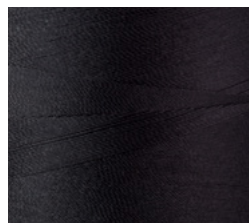
Shrinkage less than 2.5% @ 150°C

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



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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 for Apparel	Lubricated continuous filament polyester for neat and attractive stitching.
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.
Gral Protect	Sewing thread treated to give the finished thread anti-microbial / anti-fungal properties.

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.



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