

COATS  
gral  
ecoverde



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# Coats® Gral™ EcoVerde™

Coats Gral EcoVerde is a lubricated polyester thread made from 100% recycled pre-stabilised high tenacity continuous filament polyester. It is compatible with all footwear materials and delivers the same outstanding look, feel and performance you would expect from Coats virgin polyester thread.

## WHY CHOOSE GRAL ECOVERDE?

- Made from 100% recycled polyester
- Coats Gral EcoVerde is an excellent sewing thread for a wide range of footwear applications and has very good abrasion resistance
- The soft finish with superior low friction lubrication reduces the effects of needle heat and abrasion
- Gral EcoVerde exhibits excellent loop formation, consistent stitch formation and neat seam appearance
- Standard 100 by Oeko-tex® class I, the most stringent class covering babywear

## MAIN USES

- Dress shoes
- Casual footwear
- Vulcanised footwear
- Air bags
- Filtration
- Seat belts
- Automotive interiors



# Coats Gral EcoVerde

## PRODUCT RANGE

Ark/Tkt	TEX	Ticket	Length	Dtex / ply	Strength cN	Elongation Min - Max		Needle Size Metric
EV23080	35	80	3000m	113x3	2166	16	26	80 - 100
EV23060	40	60	3000m	138x3	2622	16	22	80 - 100
EV23040	60	40	3000m	226x3	4228	17	22	90 - 110
EV22030	80	30	2000m	275x3	5197	17	26	100 - 120
EV20020	135	20	1000m	455x3	8360	17	27	110 - 130
EV20015	180	15	1000m	660x3	11400	17	29	125 - 140
EV20010	270	10	1000m	940x3	16625	20	35	160 - 180
EV24008	350	8	600m	1100x3	19475	20	36	160 - 180



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 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 2019

## 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

Laundrying / 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.



### 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.



### 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 technological bulletins, we'll provide support that achieves measurable results.

For more information, talk to your Coats representative today or visit [coats.com/gral-ecoverde](https://www.coats.com/gral-ecoverde)

## 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
<b>Gral for Apparel</b>	Lubricated continuous filament polyester for neat and attractive stitching.
<b>Gral AS</b>	Engineered for use as needle thread to prevent down migration during the sewing and lifetime of padded down jackets.
<b>Gral AST Anti-static</b>	Features a metallic conductive component which detracts electrical charge to prevent static build-up.
<b>Gral AWF (Apparel Sizes)</b>	Free of perfluorinated compounds (PFCs), best anti-wick thread choice for no-compromise, premium water-resistant outdoor wear and rainwear.
<b>Gral AWF (Coarse Sizes)</b>	Free of perfluorinated compounds (PFCs), best anti-wick thread for no-compromise, water-resistant outdoor footwear and accessories.
<b>Gral Protect</b>	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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