

# World of Coats *Eco Verde*

COATS  
*Eco Verde*



RECYCLED  
POLYESTER

Product Information

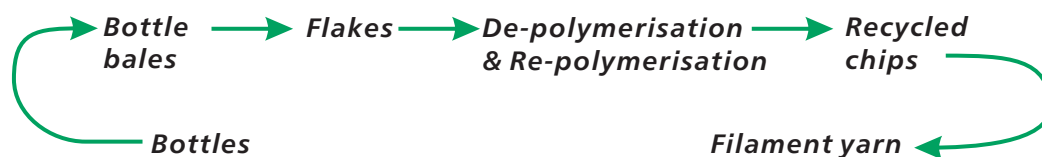
Coats *Eco Verde recycled polyester* is a sewing thread range made from recycled plastic (PET) bottle flakes. This material is approved by EPA (Environment Protection Administration Executive Yuan R.O.C.) and meets OekoTex certification standards.

Why use *Eco Verde recycled polyester* sewing threads?

The PET bottle is a very useful container but it is a problem for the environment as it is non-biodegradable. With millions of such bottles being produced daily around the world, the disposal of the used bottles has become a major concern.

However, these used bottles can be recycled. They are collected from consumers, washed, sorted and ground into flakes. The flake is then depolymerised back into its original components (EG and PTA), and converted into a new polyester raw material. This can be used to replace traditional polyester chips which are derived from oil.

The recycled raw material is then extruded, drawn and texturised to become the filament yarn from which *Eco Verde recycled polyester* sewing threads are made.



Coats *Eco Verde recycled polyester* is made in two types:

- as a **textured thread** in tickets 160 (Tex18) and 80 (Tex 35) which are intended for use on the loopers of chain stitch derived stitch types.
- as a **continuous filament sewing thread** in ticket size 80 (Tex 35), which has been specially engineered to provide acceptable sewing performance on lockstitch derived stitch types. This is unique for a sewing thread which is derived from a textured yarn as textured sewing threads are not designed to be used as needle threads, especially on lockstitch derived stitch types.

#### Main Uses:

- General make up of all knitted and woven recycled polyester apparel.

## World of Coats

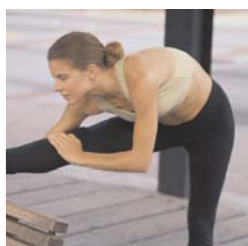
- Coats has been the world's leading thread company for over 200 years and is the only truly global thread supplier.
- With manufacturing plants in over 40 locations and sales and distribution in more than 70 countries, Coats is uniquely placed to serve your thread needs anywhere in the world.
- Coats operates to a global specification for *Eco Verde recycled polyester*.





Article No.	Tex no.	Equivalent cotton ticket (Ne) No.	Total decitex average	Ply	Target strength in cN	Elongation % (average)	Approximate length from one x 1 litre bottle
<i>EcoVerde textured recycled polyester</i>							
EV11	18	160	180	1	680	25 - 35	1450m
EV11	35	80	360	2	1340	25 - 35	725m
<i>EcoVerde continuous filament recycled polyester</i>							
EV21	35	80	360	2	1340	25 - 35	725m

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



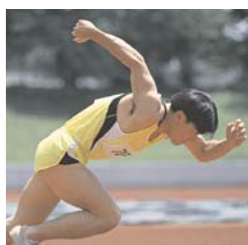
**Physical and chemical properties of polyester:**

**Thermal Properties**

- Polyester melts at 250 - 260°C, softens at 220 - 230°C
- Thread shrinkage is less than 1% @ 150°C

**Chemical Properties**

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



*EcoVerde organic cotton* sewing threads don't have the same physical characteristics as virgin polyester sewing threads such as Coats *gramax* or *gral* but they have been engineered to give the best possible on - machine performance.

The continuous filament version has been designed to sew in the needles of lockstitch derived stitch types. In order to achieve acceptable seam strength it has been engineered as a ticket 80 (Tex 35). It may therefore be necessary to use a slightly larger needle than with "conventional" sewing threads.

On very demanding sewing applications such as twin needle lockstitch or multi directional lockstitch, it may also be necessary to slightly reduce maximum running speeds to avoid damage to the delicate filaments of *EcoVerde organic cotton* sewing threads.