



## Welcome to Textile Eco-Metrics

**Eco-Metrics is a new, unique and extremely powerful environmental impact calculator for the textile industry, which compares different fibres, fabrics, garments and processes in a simple drop-down menu format and comes up with a score or rating based on 'Environmental Damage Units'.**

**For a reasonable annual subscription you get unlimited access to the Eco-Metrics tool which allows you to calculate the environmental impact of virtually any item of clothing that is produced.**

- 1) The first step is to subscribe to Eco-Metrics via our web-site after which you will receive a secure username and password which will be locked to your computer and allow you to access the tool.**
- 2) Once you have logged in you will see the following welcome screen (below), which outlines what exactly the Eco-Metrics tool is. CLICK NEXT.**



**Welcome to Textile Eco-Metrics :**  
the objective environmental impact calculator  
for textiles.

Textile Eco-Metrics allows you to objectively compare different fibres, fabrics, garments and processes by analysing the four main impacts of textile production, laundry and disposal :

- 1 Impact on water.
- 2 Energy consumption.
- 3 Use of non-renewable materials.
- 4 Pollution.

We've analysed vast amounts of data and developed universal Environmental Damage Units (or EDUs) which enable us to assign numerical scores to the four impacts, to give you an indication of the overall environmental damage.

The EDUs permit the comparison of environmental impacts of production with those of different laundry processes, and also show the benefits of durable, high-quality merchandise over non-durable disposable fashion.

We've based our calculations on industry-average performances of good, technically sound processes. The EDU indications are also supported by simple, easy-to-understand commentary to help develop a fuller understanding of the world of textiles and the environment.

Simply select from the drop-down boxes on the Eco-Metrics tool to build your desired product, choose how durable you expect it to be, and the way in which it will be washed and dried and press the CALCULATE button.

N E X T 



5) When you are satisfied you have correctly selected the right production and laundering pathways for your garment you can click the 'Calculate' button.











6) The Eco-metrics tool will then immediately calculate the environmental impact of the particular type of garment you have chosen (see below).


			Water	Energy	Non-renewables	Pollution
Fibre	Cotton (organic)	Organic cotton does not permit the use of synthetic pesticides or fertilisers.	Red	Green	Green	Green
Yarn	Medium Staple	Fine yarns use more energy/kg to spin. Filament yarns are formed as the fibre is manufactured. Spun yarns need a separate energy intensive process to form the yarn.	Green	Yellow	Green	Green
Fabric Weight	Medium (150–300 gsm)	Lightweight fabrics use more energy/kg to knit or weave.	Green	Yellow	Green	Green
Dye Method	Cotton (organic)   Garment	Warm to high temperature dyeing, high chemical usage, poor dye fixation and long wash off.	Red	Red	Yellow	Yellow
Finish	Laundry Wash (light)	Washing process using similar amounts of water, energy and chemicals as a synthetic dyeing.	Yellow	Yellow	Green	Green
Life Expectancy	10 Washes	The SODUs account for the extra environmental impact of frequent replacement of low-durability or 'disposable' fashion compared with the best available durability for a given product type.	<b>KEY</b> <span style="color: red;">■</span> Massive environmental impact <span style="color: yellow;">■</span> Significant environmental impact <span style="color: green;">■</span> Little or no environmental impact			
Wash Temperature	60 deg C	standard amount of energy used to turn the drum, and standard water and chemical usage. Extra energy to heat water.				
Drying Method	Line Drying	No energy requirement.				
Garment	T-shirt					
			Total EDUs/kg		31.00	
			Total EDUs/Garment		6.20	
			Total EDUs used in laundry and drying over lifetime of garment		2.62	

7) As you can see, your chosen garment get's assigned three EDU (Environmental Damage Unit) scores.  
 Per kilogram of selected textile article  
 Per garment  
 EDU's for laundry and drying over the selected life-time of the garment.

- 8) The Eco-Metrics tool also calculates 'sub-optimal durability units' for each particular selection. This is a measure of the impact of having to replace non-durable merchandise. Again this is based on huge amounts of data and industry knowledge. **The tool will calculate a high SODUS score for a low durability product. And conversely it can be as low as zero for high durability merchandise. 1 SODU = 1 EDU.**
- 9) There is also a colour coded assessment of each individual step in the production process.

<b>Finish</b>	Heat Setting	Used to set synthetic fibres by application of high temperature. Can be post-setting or pre-setting.				
<b>Life Expectancy</b>	5 Washes	The SODUs account for the extra environmental impact of frequent replacement of low-durability or 'disposable' fashion compared with the best available durability for a given product type.	<b>KEY</b>  Massive environmental impact  Significant environmental impact  Little or no environmental impact			
<b>Wash Temperature</b>	95 deg C	Standard amount of energy used to turn the drum, and standard water and chemical usage. Energy to heat water to high temperature.				
<b>Drying Method</b>	Line Drying	No energy requirement.				
<b>Garment</b>	T-shirt					
			<b>Total EDUs/kg</b> 29.00 <b>Total EDUs/Garment</b> 5.80 <b>Total EDUs used in laundry and drying over lifetime of garment</b> 2.07 <b>Sub-Optimal Durability Units</b> 52.20			

 RE - SET

**Results** 

Eco-Metrics Report from Colour Connections [Copyright ©Phil Patterson 2008]      Application design & development: John Williams  
www.colour-connections.com      www.fine-words.com

- 10) Simply click the blue re-set button to return to the beginning and to calculate the environmental impact of another type of textile or garment.