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# Quick guide for manufacturers

# 01

## about TCO Certified

TCO Certified is an international third party sustainability certification for IT products. By choosing TCO Certified computers, displays and other devices, businesses and organizations around the world are able to help meet environmental and social challenges associated with electronics.

Since the end of the 1980s, TCO Development has advanced the sustainable development of IT products. Today our international certification system – TCO Certified – makes it easier to choose sustainably designed and manufactured IT products such as displays, computers, smartphones and tablets. TCO Certified is a third party certification, Type 1 Eco Label according to ISO14024.

For your brand, TCO Certified offers a third party verified structure to demonstrate your progress toward key environmental and social targets. Certifying your products offers you the confidence that you comply with updated criteria, therefore also reducing the risk for negative attention from media, NGOs and other stakeholders.

Available in eight product categories: displays, notebooks, tablets, smartphones, desktops, all-in-one PCs, projectors and headsets.

### Sustainability in all life cycle phases

Electronics are associated with many different sustainability risks throughout the life cycle, including manufacturing, use and end of life phases. Criteria in TCO Certified aim to address many of these social and environmental challenges, making it the most comprehensive third party sustainability certification for IT products.



#### Manufacturing phase

Criteria for socially responsible manufacturing, environmental-management system.



#### Use phase

Criteria for climate, emissions ergonomics, health/safety and extended product life



#### End of life phase

Criteria for reduction of hazardous content and chemicals, design for recycling

With every major update we aim to enhance the criteria in line with technology innovation and sustainability challenges. Updates are a result of dialog with key stakeholders, such as purchasers, users, industry, and subject matter experts.

[www.tcodevelopment.com/tco-certified](http://www.tcodevelopment.com/tco-certified)

# 02

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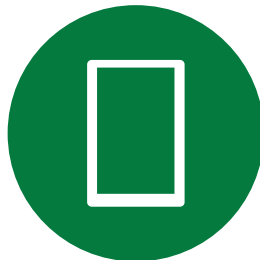
**products  
you can  
certify**



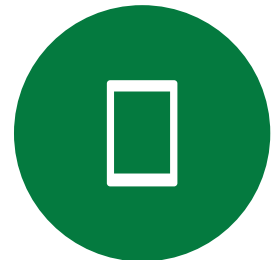
**Displays**



**Notebooks**



**Tablets**



**Smartphones**



**Desktops**



**All-in-One PCs**



**Projectors**



**Headsets**

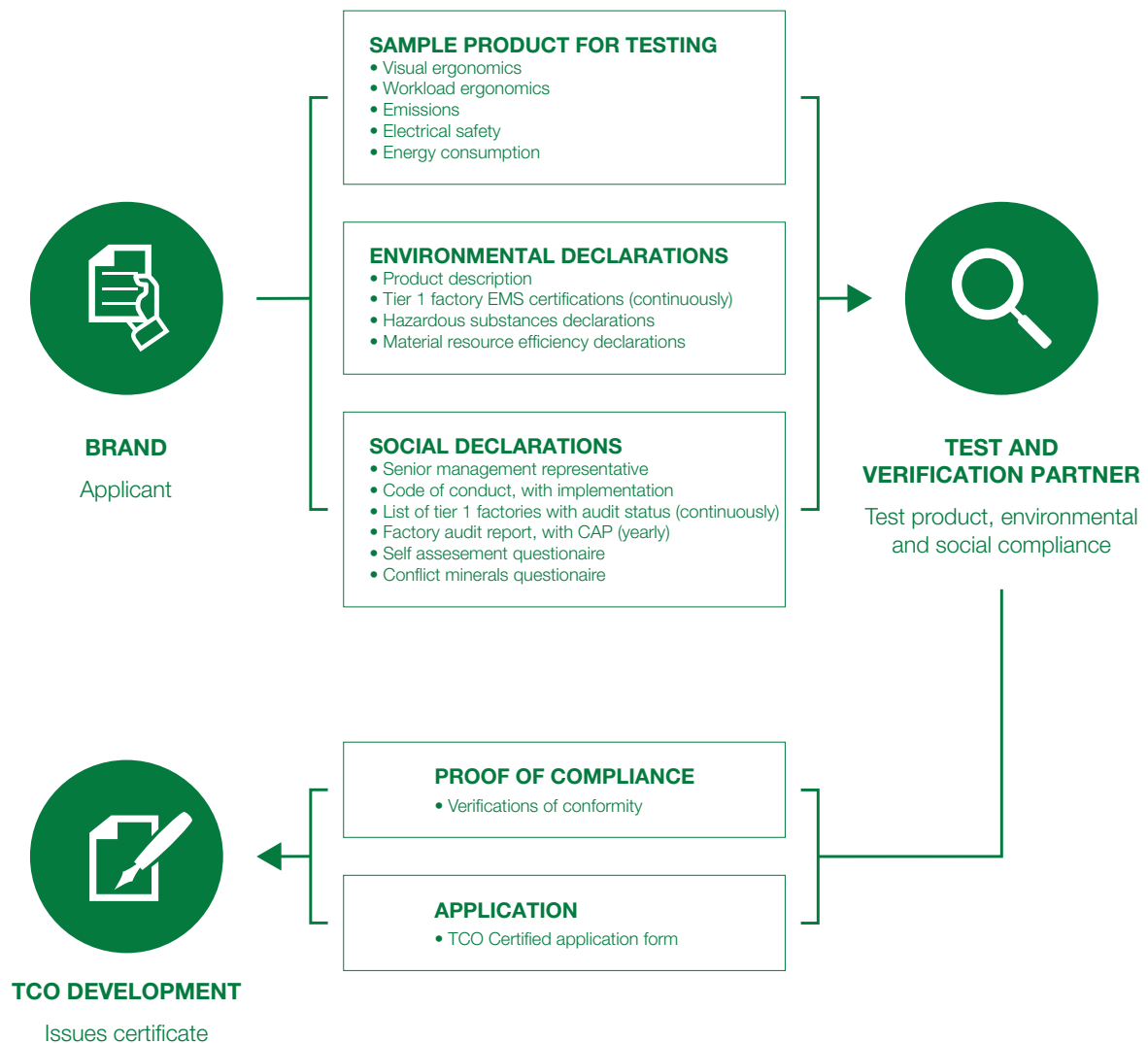
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## how to certify your products

### The certification process

Certify your products and meet the growing buyer demand for sustainably designed and manufactured devices. Backed up by third party testing and verification, TCO Certified is an effective way to demonstrate your commitment to environmental and social responsibility throughout the product life cycle: manufacturing, use and end of life.

Certifying your products is a straightforward process. We work with a number of accredited test and verification partners that are qualified for product testing, verification of declarations and factory audits. The certification process is outlined below and can take as little as two weeks. For complete details on the process, contact our certification team at [certification@tcodevelopment.com](mailto:certification@tcodevelopment.com) or visit [www.tcodevelopment.com](http://www.tcodevelopment.com).



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# criteria for all product categories

## general criteria for environment

critterion	verification method
Environmental Management System at factory (ISO 14001/ EMAS)	Verified by accredited third party
Energy Efficiency - product (Energy Star where applicable)	
Energy Efficiency - power supply (International Efficiency Protocol level 5)	
Restrictions on Halogenated Substances (Manufacturer declaration)	
Restrictions on non-halogenated substances (GreenScreen for Safer Chemicals Benchmark 2 or better)	
Ban on selected Pthalates (DEHP, BBP, DBP, DIBP)	
Restrictions on Hazardous Substances (RoHS, Mercury)	
Material Resource Efficiency (Product lifetime extension)	

## general criteria for end of life handling / e-waste

critterion	verification method
Material coding of plastics	Verified by accredited third party
Take Back System offered	
Preparation for recycling	
Packaging prepared for recycling	

## general criteria for ergonomics, health and safety

crit <sup>erion</sup>	verification method
Electrical Safety	EN/IEC 60950 / 60065. CB Certificate
Workload ergonomics	Verified by accredited third party
Restrictions on Electromagnetic emissions	

## general criteria for socially responsible manufacturing

crit <sup>erion</sup>	verification method
Implementation of Code of Conduct in supply chain, including: <ul style="list-style-type: none"> <li>• ILO eight core conventions</li> <li>• UN Convention on the Rights of the Child</li> <li>• Local and national Health &amp; Safety and Labour laws</li> </ul>	Third party factory social audit (EICC VAP audit or equivalent)
Review of how the code is communicated to the supply chain	Third party review
Corrective action plans	
Proof of corrective actions	
List of all Tier 1 manufacturing plants	Verified by accredited third party
Senior management representative contact person	
Senior management representative self assessment	TCO Development review

## general criteria for conflict minerals

crit <sup>erion</sup>	verification method
Published policy and supplier awareness procedure	Questionnaire and documentation.
Due diligence process or support of an in-region responsible sourcing initiative	Verified by accredited third party

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**product  
category  
specific  
criteria**



## specific criteria for displays, notebooks, tablets & smartphones

critterion	verification method
Visual ergonomics - Image detail	Verified by accredited third party
Visual ergonomics - Luminance	
Visual ergonomics - Luminance contrast	
Visual ergonomics - Reflection	
Visual ergonomics - Color performance	

## specific criteria for displays

critterion	verification method
Ergonomics – vertical height and tilt	Verified by accredited third party

## specific criteria for notebooks

critterion	verification method
Ergonomic keyboard design (ISO 9241-4:1998(E))	Verified by accredited third party
Ability to attach external keyboard and display	
Emissions - Acoustic noise limits	

## specific criteria for tablets

critterion	verification method
Emissions - Acoustic noise limits	Verified by accredited third party

## specific criteria for smartphones

critterion	verification method
Phone supplied with a headset	Verified by accredited third party
Surfaces don't release nickel	
Battery can be replaced	

## specific criteria for desktops

crit <sup>erion</sup>	verification method
Easily accessible connections	Verified by accredited third party
Acoustic noise limits	
Restrictions on Electromagnetic emissions	

## specific criteria for all-in-one pcs

crit <sup>erion</sup>	verification method
Acoustic noise limits	Verified by accredited third party
Ergonomics – vertical height and tilt	

## specific criteria for headsets

crit <sup>erion</sup>	verification method
Sound quality	Verified by accredited third party
Acoustic noise limits	
Product adjustability	
Product durability	
Replaceable parts	
Low SAR value	
Acoustic noise limits	

## specific criteria for projectors

crit <sup>erion</sup>	verification method
Measurement for maximum HQ image (TCO Image Size)	Verified by accredited third party
Acoustic noise limits	
Restrictions on Electromagnetic emissions	
Product durability	