

# Laptop computers standards

Date	Version No.	Change
May 2008	1.0	Introduction of Best Practice specifications
May 2009	2.0	Complete revision, including the introduction of Class Leader specifications and Award Criteria

IMPACT AREA	MANDATORY
Energy performance requirements	The product meets the performance requirements of ENERGY STAR or equivalent
Parts: facilitating segregation and recovery	Parts that have to be treated separately are easily separable
Parts: facilitating segregation and recovery	Plastic parts >100 g consist of one material or of easily separable materials
Parts: facilitating segregation and recovery	Plastic parts >25 g have material codes according to ISO 11469 referring to ISO 1043
Parts: facilitating segregation and recovery	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools
Parts: facilitating segregation and recovery	Labels are easily separable. (This requirement does not apply to safety/regulatory labels)
Prolonging useful life: Hardware upgrades	Spare parts are available after end of production for 5 years
Prolonging useful life: Hardware upgrades	Upgrading of components can be done (e.g. with processor, memory, cards or drives)
Prolonging useful life: Hardware upgrades	Upgrading can be done using commonly available tools
Chemicals in	Plastic parts >25 g are free from flame retardant



components	substances/preparations above 0.1% classified as R45/46, R50/51/53 and R60/61 (67/548/EEC)
Chemicals in components	Maximum mercury content per lamp of 3mg
Packaging	Product plastic packaging does not contain chlorine
Documentation	User and product documentation do not contain chlorine bleached paper

IMPACT AREA	BEST PRACTICE
Parts: facilitating segregation and recovery	Same as the mandatory standard and all cover/housing plastic parts >25 g are halogen free
Energy performance requirements	Same as the mandatory standard
Chemicals in components	Same as the mandatory standard
Prolonging useful life	Same as the mandatory standard
Packaging	Same as the mandatory standard
Documentation	Same as the mandatory standard

IMPACT AREA	CLASS LEADER
Chemicals in components	Same as the mandatory standard and light sources are free from mercury
Documentation	User and product documentation contain recycled paper
Energy performance requirements	Same as the mandatory standard
Parts: facilitating segregation and	Same as the best practice standard



recovery	
Prolonging useful life	Same as the mandatory standard
Packaging	Same as the mandatory standard

Products awarded the ENERGY STAR label will be deemed to comply with Energy Star criteria. Appropriate means of proof for all Laptop Computers standards include a technical dossier of the manufacturer or a test report from a recognised body demonstrating that the criteria are met

## See also

#### • EU-US ENERGY STAR

See the European Commission's announcement that Energy Star criteria be used in central government procurement

### Laptop computers award criteria

IMPACT AREA	MINIMUM AWARD CRITERIA
Parts: facilitating segregation and recovery	Plastic materials in covers/housing have surface coatings that are compatible with recycling or reuse, including metal coatings
Prolonging useful life: Hardware upgrades	Servicing of products is available after end of production for 5 years
Chemicals in components	Electrical cable insulation material of power cables are halogen free (including PVC)
Chemicals in components	Electrical cable insulation material of signal cables are halogen free (including PVC)
Chemicals in components	All cover/housing plastic parts >25 g are halogen free
Chemicals in components	All printed circuit boards (without components) >25 g are halogen free
Light	Light sources are free from mercury
Operational noise	Maximum A-weighted sound power level of < 4.0 LWAd (B) in the idle operating mode



emissions	The 'Declared A-weighted Sound Power Level' (re 1 pW) of PCs or notebooks, according to paragraph 3.2.5 of ISO 9296 and should be measured in accordance with ISO 7779
Operational noise emissions	Maximum A-weighted sound power level of < 4.5 LWAd (B) when accessing a hard-disk drive The 'Declared A-weighted Sound Power Level' (re 1 pW) of PCs or notebooks, according to paragraph 3.2.5 of ISO 9296 and should be measured in accordance with ISO 7779
Documentation	User and product documentation contain recycled paper

IMPACT AREA	BEST PRACTICE AWARD CRITERIA
Parts: facilitating segregation and recovery	Same as the minimum award criteria
Prolonging useful life	Same as the minimum award criteria
Chemicals in components	Same as the minimum award criteria
Light	Same as the minimum award criteria
Operational noise emissions	Same as the minimum award criteria
Documentation	Same as the minimum award criteria

IMPACT AREA	CLASS LEADER AWARD CRITERIA
Parts: facilitating segregation and recovery	Same as the minimum award criteria
Prolonging useful life	Same as the minimum award criteria
Chemicals in components	Same as the minimum award criteria
Light	Same as the minimum award criteria



Operational noise emissions	Same as the minimum award criteria
Documentation	Same as the minimum award criteria

Appropriate means of proof for all Laptop Computers award criteria include a technical dossier of the manufacturer or a test report from a recognised body demonstrating that the criteria are met