

Xerox Cartridges for non-Xerox Printers

Compliances and Certifications

Compliances

REACH

REACH is the European Community Regulation on chemicals and their safe use (EC 1907/2007). It deals with the Registration, Evaluation, Authorization and Restriction of Chemical substances. This law came into force on 1st June 2007, with phased deadlines to 2018.

The purpose of REACH is to improve the protection of human health and the environment through a better identification of the inherent properties of chemical substances at an early stage. REACH is also intended to promote innovation and competitiveness of the EU chemicals industry.

Xerox pre-registered and/or Registered all chemicals for which it has importation responsibility at >1 tonne per year and has established Downstream User status for chemicals and products sourced from within the EU.

Xerox[®] Cartridges for non-Xerox Printers have no SVHC (Substances of Very High Concern) at or above 0.1% with regard to the most recently published ECHA Candidate List.

We continue to monitor all developments regarding this Regulation to ensure continued and complete conformity.

RoHS

The RoHS (Restriction of Certain Hazardous Substances) is a European Directive aiming to restrict and control the use of certain hazardous substances in the production of new electrical and electronic equipment (EEE) such as:

- Lead
- Cadmium
- Mercury
- Hexavalent chromium
- Polybrominated biphenyl (PBB)*
- Polybrominated diphenyl ether (PBDE)*

The RoHS European Directive is a partner directive to the WEEE Directive (Waste in Electrical and Electronic Equipment) that controls the disposal and recycling of EEE.

Xerox confirms that the European Directive 2011/65/EU(RoHS) currently does not apply to Toner or Inkjet consumables used and discarded independently from the relevant printer. All Xerox $^{\circ}$ Cartridges for non-Xerox Printers therefore are out of scope of this directive until 22nd July 2019. However, as of 22nd July 2019, cartridges with electrical and electronic components will be subject to RoHS and associated CE marking. Xerox $^{\circ}$ cartridges will comply well before that date.

WEEE

The WEEE Directive has been revised by EU Directive 2012/19/EU to now include printer cartridges which contain electrical parts and are dependent on electric currents or electromagnetic fields in order to function.

All in-scope cartridges placed on the EU market for the first time will be marked with the WEEE wheeled bin symbol by no later than December 2015 indicating to the end user that a product must be recycled separately from other household waste under the WEEE directive.



ISO/IEC 19752 and ISO/IEC 19798

ISO/IEC 19752 is an ISO standard method for the determination of toner cartridge yield for monochrome laser devices.

ISO/IEC 19798 is an ISO standard method for the determination of toner cartridge yield for colour laser devices.

ISO/IEC 19752 & ISO/IEC 19798 objective is to provide a comprehensive and rigorous definition of the measurement process with the purpose of creating clear and objective criteria for comparison of cartridge yields. In particular, the standard provides a detailed definition and description of:

- Test preparations and environmental conditions
- Sample size (at least three printers with three cartridges each)
- Type of paper
- Printer settings
- Print test page (PDF format)
- Cartridge and printer source
- Error and process handling
- End-of-life criteria (for example, how many times the cartridges should be shaken)

Xerox confirms the majority of its products for non-Xerox printers are tested for page yield utilizing the ISO methodology. Those not tested utilizing the ISO procedure have been tested using a $5\,\%$ area coverage test method. Xerox references the test method performed on each cartridge in the Replacement Cartridge Range Brochure available on Xerox.com.

DIN 33870

DIN stands for <u>Deutsches Institute für Normung</u> (German Institute for Standardization) and describes the requirements and testing for the preparation of refilled toner modules for electrophotographical printers, copiers and facsimile machines.

All Xerox $^{\circ}$ Cartridges for non-Xerox Printers are produced and tested in accordance with the procedures defined in the DIN 33870 standards.







Certifications

Xerox® Cartridges for non-Xerox Printers display key certifications and partnerships that demonstrate the ongoing commitment to quality and environmental responsibility.

ISO 9001:2008

ISO 9001:2000 is a family of standards and guidelines for quality in the manufacturing and service industries from the International Organization for Standardization (ISO).

ISO 9001:2008 is the most comprehensive level of the ISO 9001:2000 series and it covers everything from design and development through production and distribution of products and services. The overall objective is to establish a system to improve product quality and reliability.

The production process of Xerox® Cartridges for non-Xerox Printers is certified with ISO 9001:2008.



ISO 14001:2004

ISO 14001:2004 is an international standard that specifies requirements for an environmental management system to enable an organization to develop and implement a policy and objectives which take into account legal requirements and other requirements to which the organization subscribes, and information about significant environmental aspects. It applies to those environmental aspects that the organization identifies as those which it can control and those which it can influence.



All major Xerox manufacturing and distribution operations employ an environmental management system that conforms to ISO 14001. Major Xerox manufacturing operations have been certified to ISO 14001 since 1997. Major Xerox worldwide technology equipment distribution centers achieved certification in 2010.

STMC

The STMC (Standardized Test Methods Committee) is a global committee formed to find and promote standardized test methods for the printer cartridge industry. The test methods are used to evaluate the performance of a toner printer cartridge. When using standardized test methods, it is possible to evaluate a cartridge anywhere and obtain the same test results independent of who tests it

STMC uses certain ASTM (American Society for Testing and Materials) test methods such as ASTM F 1856 for yield and ASTM F 2036 for image density and background the test methods are used only to evaluate a finished cartridge in comparison to another cartridge, typically an OEM cartridge. It does not measure components.

Xerox® Cartridges for non-Xerox Printers are produced in STMC certified facilities.



