

## Brief

# Indoor air quality matters

## How Original HP LaserJet cartridges make a difference



### Did you know...

- HP LaserJet printing systems—printers, toner cartridges, and paper—are designed for the environment and for high operating performance?
- HP consistently considers and tests the whole HP LaserJet printing system under extreme operating conditions?
- HP LaserJet printing systems—using Original HP toner cartridges—meet a high level of air safety in a variety of indoor environments?
- HP LaserJet printing systems—using Original HP toner cartridges—are designed to produce emissions far below mandatory occupational exposure limit values?
- HP LaserJet printing systems are tested by competent, independent labs before market entry for all relevant emissions?

In addition to high operating performance and product reliability, many organizations are also including indoor air quality (IAQ) as an essential factor in their imaging and printing purchase decisions. HP puts forth significant effort to maximize the IAQ performance of HP LaserJet printing systems—printers, toner cartridges, and paper—to meet a high level of safety in a variety of indoor environments.

### Choose HP printing systems to meet IAQ expectations

Original HP LaserJet toner cartridges—when tested together with HP LaserJet printers and HP paper—meet or exceed IAQ criteria established by specific eco-labels like Blue Angel and EPEAT.<sup>1,2</sup> Replacing the Original HP LaserJet toner cartridge with a remanufactured cartridge could significantly impact the results of the eco-label certification or registration. If you have questions about IAQ, be sure to ask your toner cartridge supplier what processes they use, and which eco-labels their products meet.

### Rely on products designed for the environment

Numerous HP LaserJet printing systems carry internationally recognized eco-labels not just for their emissions performance, but also because of their low noise emissions and energy consumption, materials used, and recyclable design. These factors are all part of HP's Design for Environment program, established in 1992. Original HP LaserJet toner cartridges are also part of this program, and offer the following benefits to organizations.

- Rely on Original HP LaserJet toner cartridges to deliver superior print quality and consistent results, resulting in less paper waste and reduced environmental impact compared with remanufactured cartridges.<sup>3</sup>
- Reducing environmental impact without compromising quality—many Original HP LaserJet toner cartridges have been engineered to use recycled plastic, helping meet HP's demanding standards for quality and reliability.
- Responsibly recycled—return Original HP LaserJet toner cartridges to the HP Planet Partners toner cartridge recycling program. It's free to use, and available in 57 countries, territories, and regions worldwide.<sup>4</sup> No Original HP LaserJet toner cartridges returned through HP Planet Partners are ever sent to a landfill, and HP never refills or resells them.

## Air quality, optimized

### HP LaserJet printing systems are designed to meet or exceed IAQ expectations and criteria

#### Mandatory occupational exposure limit values

- U.S. Permissible Exposure Limits<sup>5</sup>
- EU Indicative and Binding Occupational Exposure Limit Values<sup>6</sup>
- German Occupational Exposure Limit Values<sup>7</sup>
- Australian National Exposure Standards<sup>8</sup>
- Singapore Occupational Exposure Levels of Toxic Substances<sup>9</sup>

#### General IAQ safety

- Californian Chronic Reference Exposure Level<sup>10</sup>
- U.S. Reference Concentration for Chronic Inhalation Exposure<sup>11</sup>
- WHO Indoor Air Quality Guidelines<sup>12</sup>
- German Guide values for Indoor Air<sup>13</sup>

#### IAQ testing efforts

- ISO/IEC 28360:2012<sup>14</sup>
- Blue Angel RAL-UZ 122/RAL-UZ 171<sup>1</sup>

#### Voluntary international eco-label standards

- Blue Angel in Germany<sup>1</sup>
- EPEAT in the U.S., Canada, and Australia<sup>2</sup>
- EcoLogo in Canada<sup>15</sup>
- Nordic Ecolabel in Scandinavia<sup>16</sup>
- EcoMark in Japan<sup>17</sup>

#### Learn more at [hp.com/go/enviroprintdesign](http://hp.com/go/enviroprintdesign)

<sup>1</sup> The Blue Angel criteria for printers, copiers, and multifunction devices (RAL-UZ 122) of the German Federal Environmental Agency are in effect as of 2007 and were valid until the end of December 2013. Since January 2013, the RAL-UZ 171 is in effect including a new particle number guide value for laser printers which supplements the established weight-based fine dust guide value of the Blue Angel.

<sup>2</sup> Electronic Product Environmental Assessment Tool (EPEAT), managed by the Green Electronics Council of the International Sustainability Development Foundation (ISDF). For printing systems, the IEEE Standard for Environmental Assessment of Imaging Equipment (IEEE Std 1680.2-2012) is applied.

<sup>3</sup> 2014 Four Elements Consulting LCA study, commissioned by HP, compared Original HP 05A and 85A monochrome toner cartridges with a sample of remanufactured alternatives across eight environmental impact categories. For more, visit [hp.com/go/NA-LJLCA](http://hp.com/go/NA-LJLCA). The LCA leverages a SpencerLab 2013 Reliability study, commissioned by HP, where Original HP toner cartridges were compared with nine remanufactured brands sold in North America. For details, see [spencerlab.com/reports/HP-Reliability-NA-RM-2013.pdf](http://spencerlab.com/reports/HP-Reliability-NA-RM-2013.pdf). In the EMEA region, 2014 Four Elements Consulting LCA study, commissioned by HP, compared Original HP 05A and 85A monochrome toner cartridges with a sample of remanufactured alternatives across eight environmental impact categories. For details, see [hp.com/go/EMEA-LJLCA](http://hp.com/go/EMEA-LJLCA). The LCA leverages a SpencerLab 2013 Reliability study, commissioned by HP, where Original HP toner cartridges were compared with 5 remanufactured brands available in Europe, Middle East and Africa. For details, see [spencerlab.com/reports/HP-Reliability-EMEA-RM-2013.pdf](http://spencerlab.com/reports/HP-Reliability-EMEA-RM-2013.pdf).

<sup>4</sup> Program availability varies. Original HP toner cartridge return and recycling is currently available in 57 countries, territories, and regions in Asia, Europe, and North and South America through the HP Planet Partners program. For more information, visit [hp.com/recycle](http://hp.com/recycle).

<sup>5</sup> U.S. Occupational Safety and Health Administration (OSHA), PELs-TWA, 29 CFR 1910. 1000-1/Z-2, 20016.

<sup>6</sup> European Commission, Binding Occupational Exposure Limit Values (BOELV), EU Directive 2004/37/EC.

<sup>7</sup> The revised German Ordinance of Hazardous Substances (GefStoffV) defines the workplace limits (AGW). AGWs are stated in the TRGS 900, 2006, as amended.

<sup>8</sup> Australian National Occupational Health and Safety Commission (NOHSC), National Exposure Standards (NES), NOHSC:1003, 1995/2005.

<sup>9</sup> Singapore Occupational Exposure levels of Toxic Substances, Workplace Safety and Health (General Provisions) 2006 (S 134 2006), as amended.

<sup>10</sup> Office of Environmental Health Hazard Assessment (OEHHA), California, Chronic Reference Exposure Levels (CREL), February 2005.

<sup>11</sup> U.S. Environmental Protection Agency (U.S. EPA), Reference Concentration for Chronic Inhalation Exposure (RfC), 2005.

<sup>12</sup> World Health Organization (WHO), Air Quality Guidelines for Europe, 2nd edition, 2000.

<sup>13</sup> German Federal Environmental Agency (UBA), Guide values for indoor air, 2005.

<sup>14</sup> ISO/IEC 28360:2012 is a standard measurement procedure for determining chemical emissions and requires testing under high-use operating conditions.

<sup>15</sup> The EcoLogo Program, founded by the Government of Canada, Type I eco-label, as defined by the International Organization for Standardization (ISO).

<sup>16</sup> Nordic Ecolabelling of imaging equipment, version 5.4. The Nordic Ecolabel or Nordic Swan is the official sustainability eco-label for the Nordic countries, introduced by the Nordic Council of Ministers.

<sup>17</sup> EcoMark, Japan Environment Association (JEA), printers criteria, version 2.11.

Sign up for updates  
[hp.com/go/getupdated](http://hp.com/go/getupdated)

