

# Toughbook 54 Certifications



## **MIL-STD Certifications: MIL-STD-810G**

The Toughbook® 54 is MIL-STD-810G certified<sup>1</sup> for a range of conditions including 36" drops, shocks, vibration, humidity, altitude, dust- and sand-resistance, temperature extremes and thermal shock. Each of the sixteen MIL-STD-810G tests conducted have been certified by independent lab testing. MIL-STD-810G, which was created in October 2008, supersedes MIL-STD-810F. [DOWNLOAD MIL-STD-810G REPORT](#)



## **Ingress Protection (IP51)**

The Toughbook® 54 is IP51 certified<sup>1</sup> according to the IP code defined in International Standard IEC 60529. Rather than vaguely describing equipment as "waterproof" or "dustproof", the IP Code uniformly quantifies various levels of resistance to liquids, particulates and solid objects. The numbers following the letters "IP" represent the specific degree of protection provided by electrical enclosures. The first digit (5) indicates the ingress of dust at a level that will not have a harmful effect on the operation of the unit, ranges from 1 to 6. The second digit (1) indicates vertically dripping water will not compromise the computer's functioning, ranges from 1 to 8. Higher numbers indicate a higher tolerance to dust and water. For example, a unit with an IP65 rating will withstand both elements better than a unit with an IP54 rating. [DOWNLOAD IP51 REPORT](#)



## **ENERGY STAR Qualification**

ENERGY STAR, a joint program between the U.S. Environmental Protection Agency and U.S. Department of Energy, offers voluntary qualification for products that are energy efficient. The ENERGY STAR program sets high standards designed to save energy, save money and help protect the environment for future generations. Panasonic is one of nearly 20,000 organizations that have become ENERGY STAR partners, all working to promote, sell, or improve products, homes, and buildings that use less energy and qualify for the ENERGY STAR. Panasonic's commitment to ENERGY STAR initiatives and other environmental programs have resulted in all Toughbook® computers earning the ENERGY STAR.

ENERGY STAR for computers raises the efficiency bar dramatically. ENERGY STAR establishes efficiency requirements for all modes of a product's operation, which ensures energy savings when a product is active and running basic applications, as well as in low power modes. Qualifying products must also include an internal power supply that is at least 80 percent efficient. Only the most energy-efficient products, including all Toughbook computers have qualified for the new specification. If all computers sold in the US meet ENERGY STAR requirements, the savings in energy costs will grow to more than \$1.5 billion each year, reducing greenhouse gas emissions equivalent to those from 2 million vehicles. [READ MORE](#)



## **EPEAT Certification**

EPEAT is an easy-to-use, online tool to help purchasers in the public and private sectors evaluate, compare and select products based on their environmental attributes. EPEAT also provides a clear and consistent set of performance criteria for the design of products, and provides an opportunity for manufacturers to secure market recognition for their efforts to reduce the environmental impact of its products.

EPEAT evaluates electronic products according to three tiers of environmental performance — Bronze, Silver and

Gold. There are 51 total environmental criteria: 23 required criteria and 28 optional criteria. A Bronze-rated product meets all 23 required criteria. A Silver-rated product meets all 23 required criteria plus at least 50% of the optional criteria. A Gold-rated product meets all 23 required criteria and at least 75% of the optional criteria. [READ MORE](#)



### ISO Certification

Since 1996, all Panasonic manufacturing plants worldwide—including the factory in Kobe, Japan—have achieved ISO 14001 registration and implemented the ISO 14001 Environmental Management System. The Kobe factory has also been certified for ISO 9001, an international standard for quality management systems that enhance product quality assurance and customer satisfaction.

International Organization for Standardization (ISO) is an international federation promoting the development of international manufacturing, trade, and communication standards. ISO 14000, a series of standards, provides the framework for managing the environmental impacts of an organization.

The ISO 14001 international standard established a systematic approach that organizations can use to minimize or prevent environmental impacts and risks. This approach, known as an Environmental Management System or EMS, requires the organization to establish an environmental control policy, educate employees about procedures and continually monitor environmental performance.



### RoHS Compliance

For manufacturers of electronic equipment, the main impact of RoHS is that only lead-free products can be sold in Europe. Panasonic has therefore shifted to lead-free solder. By selling RoHS-compliant products in all countries, not just Europe, Panasonic helps eliminate hazardous electronic waste materials from landfills and waste dumps around the world. [READ MORE](#)



### Section 508 Standards

Section 508 was enacted to eliminate barriers in information technology, to make available new opportunities for people with disabilities, and to encourage development of technologies that will help achieve these goals. Electronic and information technology procured by Federal agencies must meet Section 508's requirements for accessibility.

Toughbook® mobile computers have long been designed and manufactured with access-friendly features, such as touchscreens and the ability to be mounted on wheelchairs. In addition, Panasonic works closely with Microsoft to ensure that Toughbook computers can take full advantage of the accessibility features built into Windows®. Panasonic continually endeavors to make all its products more accessible to, and usable by, individuals with disabilities. In fact, Panasonic worked with ITIC (Information Technology Industry Council) in developing the Section 508 "Buy Accessible" template, and also actively participates in the GSA (General Services Administration) sponsored Accessibility Forum. [READ MORE](#)



### Verizon

Verizon Wireless delivers high-speed wireless access in 259 major metro areas, covering more than 280 million people. Panasonic Toughbook computers connect to the Verizon Wireless network without the need of a PC card or Wi-Fi hotspot. [READ MORE](#)



### **AT&T**

A United States wireless leader, AT&T has more than 72.9 million subscribers and offers the best coverage of any carrier worldwide<sup>1</sup>. Panasonic Toughbook mobile computers are designed with embedded wireless technology allowing instant access to AT&T's extensive high-speed network without the need for an external card, additional antenna or other accessories. [READ MORE](#)



### **Sprint**

Sprint offers a comprehensive range of wireless connectivity services reaching over 249 million individuals, businesses and government users. Select Toughbook mobile computer models connect seamlessly with Sprint's extensive network, delivering high-speed wireless access in over 18,477 cities and 1,818 airports. [READ MORE](#)

<sup>1</sup> Tested by national independent third party lab following MIL-STD-810G Method 516.6 Procedure IV for transit drop test and IEC 60529 Sections 13.4, 13.6.2, 14.2.5 and 14.3 for IP65.