

IP Testing for Electronic Device Protection

IP (Ingress Protection) testing is used to evaluate the effectiveness of enclosures in protecting electronic devices from the ingress of dust and water. The procedures and methods involved in the **IP tests conducted by INTEK** ensure the resistance and reliability of the enclosures to achieve the required protection level.

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IP Protection Rating Classification

The **IP classification** indicates the degree of protection provided by an enclosure against the ingress of solids and liquids. Regulated internationally, the **IP classification** is expressed through two digits: the first indicates protection against solids, while the second indicates resistance against liquids. For

example, a device with an IP67 rating is completely protected from dust and can be immersed in water up to 1 meter deep for a maximum of 30 minutes.

Protecting electronic devices from dust and water is essential to ensure their durability and reliability. The **INTEK laboratory** can perform all **tests to verify IP and K ratings**.

IP Standards for the Safety of Electronic Enclosures

Compliance with **IP standards** can be a requirement for access to international markets and regulatory approval. The **EN 60529** standard establishes how to classify the degrees of protection provided by enclosures for electrical equipment, while **Directive 2014/35/EU**, also known as the **Low Voltage Directive**, deals with safety concerning the use of electrical equipment.



Testing Procedures for IP Protection

The **IP protection testing procedures** involve exposing enclosures to dust particles or water sprays under controlled conditions. This includes immersion tests, water spray tests, and dust penetration tests. **IP protection testing** procedures are conducted with specialized equipment, following strict protocols and in compliance with the relevant standards.

INTEK's IP Testing Services

INTEK offers compliance testing services for all levels of IP protection. The INTEK IP testing laboratory is equipped with state-of-the-art automated equipment to perform IPX9 tests, which can monitor temperature, water flow, and impact force of the jet. Thanks to advanced technologies and a team of qualified professionals, INTEK guarantees precise and reliable results.

Additionally, the INTEK laboratory supports its customers in evaluating the corrosion resistance of materials and surface coatings through salt spray tests.



Custom IP testing

IP testing is not just a regulatory requirement, but an investment in the reliability of your products. INTEK offers comprehensive support for **IP testing**, customized to specific customer requirements, and oriented towards obtaining certifications and improving the products' **resistance to water and dust** ingress.

Request information for IP Testing for Electronic Device Protection

INTEK is an independent test and measurement laboratory, an Italian excellence in test and measurement services. **Request information online about the IP Testing for Electronic Device Protection service:**

<https://www.intek.it/en/ip-testing-for-electronic-device-protection/>