

Tumble Testing Checklist



Ensure your packaging is ready for the real world

What is Tumble Testing?

Tumble testing evaluates a product's response to the impacts and falls it may be subjected to in distribution, storage, and in-use environments.

Why Tumble Test?

Tumble testing simulates the wear and tear that a particular product may face over its lifetime. This provides manufacturers and packaging engineers with insight regarding the strength and rigidity of their product.

When to Consider Tumble Testing – Random Drop



Your product will experience multiple handling cycles (Manufacturing, distribution, consumer handling).



You're preparing for Research and Development, EVT, PVT, DVT testing for product reliability matrix and validation.



Your product has solder joints within the solder balls or at the interfaces with intermetallic compounds (IMC) that could stress, fatigue, and crack from a drop event.



Your company is ready to have an initial New Product Introduction.



You need to comply with IEC, Mil STD, or customer specific specs that require random drops.



Past testing or field data suggests damage risk from handling, and you want to streamline testing to meet the next product design cycle.

Contact Us



800-830-8021



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Benefits of Tumble Testing Random Drop

- ☐ Identify weak points before product launch or the next engineering cycle.
- ☐ Build confidence in product durability.
- ☐ Support compliance and validation programs.
- ☐ Protect product integrity through distribution.
- ☐ Reduce customer complaints and returns.

How to Prepare for Tumble Testing

- ☐ Provide details of product, quantities, and test spec/test methods to be referenced and used.
- ☐ Include any special instructions (are there any post-test instructions at interval as not part of the publicized specification)?
- ☐ Define your test objective (compliance, validation, R&D, or troubleshooting).
- ☐ Share any standards or protocols required (SOPs and Specific Dut formalities).
- ☐ Align on timeline (when do you expect sample availability and when do you need the results).

Why WESTPAK?

WESTPAK, Inc., a third-party, independent test laboratory specializing in product and package testing solutions, supports speed to market with testing expertise, service, and quality. Its California-based facilities total more than 100,000 square feet of testing and administrative space. Testing is accredited to ISO/IEC 17025 by the American Association for Laboratory Accreditation (A2LA); laboratories are certified by the International Safe Transit Association (ISTA).

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