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Packaging Validation Services

**Peel Strength Test**

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## Peel Strength Test - Medistri

### Peel Strength Test

Measuring the bond strength of materials is a key factor in determining the reliability and durability of many products. By ensuring the adhesive strength meets the required standards, manufacturers can enhance product quality, improve customer satisfaction, and prevent potential failures or malfunctions.

Peel Strength Test is a measure of the adhesive strength of materials that have been bonded together. It is used to calculate the peel strength, which is then used to determine how effective an adhesive will be when joining certain types of materials.

The seal strength of medical packaging is extremely important for two reasons – first to ensure that the packing can be opened easily by the medical professional, and second to ensure that the adhesive is strong enough to prevent any breaches of the packaging prior to their use. During shipping and storage the adhesive must remain viable to maintain sterilization: any breach in the packaging would de-sterilize the product potentially leading to life-threatening infections for the patient.

The materials are peeled apart at a constant speed and the strength of the force needed to separate the materials is calculated along with the width of the bond surface to determine the peel strength. Typically, tests involve peeling two flexible materials that have been bonded to each other, or one flexible bonded material adhered from a rigid substrate.


Peel strength testing is often used to characterize the bonding strength of tape, adhesives, and flexible substrates, such as rubber, films, biomaterials, consumables, medical packaging, and more. There are many different peel testing methods to choose from, depending on the materials used.

When testing an adhesive to a thick substrate, standard grips result in a misaligned specimen. Testing to EN 868-5 requires either advanced screw side action grips or pneumatic side action grips, both of which can be adjusted to offset to ensure that the specimen remains centered in the load string. Pneumatic grips provide an advanced solution by ensuring a repeatable gripping force to eliminate slippage specimen slippage.

EN 868-5 is a standard that specifically focuses on the seal strength of single-use sterilized medical packaging. This standard is used to measure the adhesion strength between the two materials of the packaging, typically a coated paper backing and a plastic film overlay.

This test is crucial in the medical device manufacturing industry, where maintaining the sterility of packaged products is of utmost importance. The Peel Strength Test, according to EN 868-5, helps validate the seal strength requirements of medical packaging materials.

EN 868-5 provides a comprehensive method for testing the peel strength of sterilized medical packaging, ensuring both the ease of opening for medical professionals and the integrity of the sterile barrier during storage and transportation.

 To learn more about Medistri's Peel Strength Test, visit on our website [here](#) or directly contact our team at [contact@medistri.swiss](mailto:contact@medistri.swiss).

- The Medistri Team

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