Reduced structural depth - better adhesion

For many years SCHLENK has specialized in the production of the thinnest metal foils with a wide variety of possible surface treatments and supply formats.

SCHLENK has supplied copper and nickel foils to battery manufacturers for over 20 years and, since 1998, has used special coating processes and families of electrolytes that have been under continuous development to produce metal foils with functional layers.

SCHLENK has succeeded in using the neutral conductor principle for foils. This has resulted in an advancement in structure size in sub-micrometer dimensions (≈100 nm).

In comparison with conventional treatments, the depth of the precipitated structure is less by a factor of 10. In contrast to previous knowledge, which suggested a direct relationship between the size of the structures and the increase in adhesion, this innovative treatment significantly improves the adhesive properties of the foil surface with respect to a wide variety of substrates.

OUTSTANDING PRODUCT CHARACTERISTICS

- Excellent adhesion values
- Improved adhesion with respect to materials that are difficult to process
- Structural depth <0.2 µm
- Coating on one or both sides possible

HIGH ADHESION FOILS

Foils optimized for adhesion

Peel strength values for standard foil

Peel strength values for adhesion-optimized foil
Application Areas

- Lithium-ion batteries
- Metal hydride batteries
- Special batteries
- Flexible circuit boards
- Circuit boards for high frequency applications
- Shielding foils

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