# SCHLENK 🚺

# Competencies



Rolling and cladding: Wide, ultra-thin, single or double-sided, different layer ratios and materials



Slitting: Narrow, thin, precise

Surface treatments: Electroplating, roll cladding, degreasing

# **Material combinations for cladding**

CopperETP copper, HCP copper, OF copperSilver-claddingSilver (Ag 99.99%)Al-claddingAluminium (Al 99.5%)InvarFeNi36Tin-claddingL-Sn60Pb40, L-Sn62Pb36Ag2,<br/>L-Sn96.5Ag3.5 (RoHS compliant),<br/>L-Sn96.5Ag3Cu0.5 (RoHS compliant),<br/>Sn96.8 (with antioxidants)<br/>Sn100 (RoHS compliant)

Rolling mill Bernlohe



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# www.schlenk.com

# Roll-clad Foils for challenging requirements



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#### Different solder coatings upon request

#### Dimensions

thickness width 0.01 - 0.500 mm 0.6 - 600 mm\* \* Depending on thickness

# Advantages of roll clad foils made by SCHLENK

Roll clad foils can reduce costs and weight. Physical properties such as corrosion resistance and conductivity or thermal expansion can be combined.

- Flux free solder coating
- Precise layers with tightest tolerances
- Single sided or asymmetrical coating possible
- Wide variety of composite combinations
- New products with enhanced properties tailored to specific needs
- Economical solutions
- Short lead time due to modular production principle

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For many decades SCHLENK has specialized in the production of thinnest metal foils with a wide variety of possible surfaces and supply formats. Roll clad foils from SCHLENK show a significantly higher precision than hot dip tinned foils. The thin, individually and precisely processed metal foils from SCHLENK meet the requirements of many lines of industry for maximum resource – efficiency.

## **Application possibilities**

Roll-cladding is a process in which two or more strips of metal are jointly passed through a rolling mill. The composite material consists of several different layers of metal which may be clad in various thicknesses. The individual layers are joined inseparably. As both metals are plastically deformed in the rolling process they are forced into forming a solid connection with each other.

#### **Typical applications:**

There are many different applications for roll clad foils in almost all important areas of industry:

Automotive, Solar industry, Medical industry, Energy supply and flat cable industry (FFC), Electronics and many others





## **Options\*:**

SINGLE SIDE	cladding	Silver	Solder	Steel	Copper	Copper
	base	Copper	Copper	Copper	Aluminium	FeNi36
BOTH SIDES	cladding	Silver	Solder	Copper	Copper	
	base	Copper	Copper	Nickel	FeNi36	
	cladding	Silver	Solder	Copper	Copper	
DIFFERENT MATERIALS	cladding	Silver	Solder A			
	base	Copper	Copper			
	cladding	Solder	Solder B			
DIFFERENT RATIOS	cladding	3% / 4% / 5,6% of total thickness				
	base					
	cladding	10% / 13% of total thickness				

# **Combination of properties**

#### For example\*:

- Silver (Ag) / Copper (Cu) vs. Ag High conductivity, cladding with solid copper base with good electrical properties
- Aluminium (Al) / Copper (Cu) vs. Cu Light weight benefits and good welding properties in combination with high conductivity

\*Other variations and combinations possible – please inquire.