Comparative guide to polyurethane suction hoses

i **The thicker the wall, the less flexible the hose; weight and cost also increase.**

Model	Wall	Spiral	Flexibility	Typical use
PU04SM	0.35-0.50 mm	Copper-plated steel	Very high	Dust, fumes, sawdust, light chips
PU04	0.40 mm	Copper-plated steel	Very high	Light-duty suction, dust and sawdust
PU04AZ	0.40 mm	Galvanized steel	Very high	As PU04, with galvanized spiral
PU04R	approx. 0.40 mm	Copper-plated steel	Very high	Light-duty suction; check technical data sheet
PU05SR	0.40-0.60 mm	Copper-plated steel	High	Dust, sawdust and chips; higher performance
PU06	0.60 mm	Copper-plated steel	High / medium	Small-medium chips, heavier-duty use
PU08	0.80 mm	TPU-coated steel	Medium	Medium chips and abrasive materials
PU09SR	0.90 mm	Copper-plated steel	Medium	Chips and abrasive materials; higher robustness
PU10	1.00 mm	TPU-coated steel	Medium-low	Medium-large chips and abrasive materials
PU12SR	1.20 mm	TPU-coated steel	Low	Heavy-duty suction, medium-large chips
PU14SR	1.40 mm	TPU-coated steel	Lower	Heavy-duty applications and abrasive materials

How to choose wall thickness

Thinner wall: greater flexibility, lower weight and cost. **Thicker wall:** greater abrasion resistance, but lower flexibility, higher weight and higher cost.
Do not automatically choose the thickest hose: PU04 or PU06 is often sufficient for dust, fumes and sawdust; for heavy chips and abrasive materials, PU08, PU10, PU12SR or PU14SR is generally more suitable.

Differences between spiral types

Spiral type	Advantages	Limitations
Copper-plated spring steel	Good elasticity; widely used; excellent integration in lightweight hoses	More limited surface protection
Galvanized spring steel	Better surface protection against corrosion	Generally lower adhesion to polyurethane than TPU-coated spiral
TPU-coated steel	Improved adhesion to hose wall; good protection; ideal for more robust hoses	Generally more expensive solution
Spiral connected to ground	Helps dissipate electrostatic charges	Does not automatically mean antistatic certification

Final selection should consider the conveyed material, abrasiveness, diameter, bend radius, required vacuum and frequency of use. For special applications, please contact our technical department.