

# Consumables

## for ProtoMat circuit board plotters

[Order info](#)
[Inside front cover](#)


LPKF produces the highest-quality supplies and consumables for all ProtoMat circuit board plotters. From copper-clad material to cleaning pads and adhesives, LPKF realizes that the highest-quality end products must begin with the highest-quality starting components.

Plotters

Laser

Plating

Multilayer

SMT/Finishing

Tech Guide

Index

Consumables

**Starter sets** (for first ProtoMat use)

LPKF Starter sets are comprehensive collections of work material, bits, and other accessories designed to reduce startup time by supplying all needed components. Starter sets are recommended individually for each ProtoMat.

Machine	Part #	Content		
LPKF ProtoMat S100	<b>117527</b>	<b>For use without vacuum table</b> 10x Drill underlay material 229 x 305 mm (9" x 12"), 2 mm (0.08") (predrilled)		
	<b>122159</b>	<b>For use with vacuum table</b> 2x sinter backing plate white 315 x 239 x 5 mm (12.4" x 9.4" x 0.2")		
	both sets additionally contain:	10x Base plate FR4, 229 x 305 mm (9" x 12"), 0/35 µm (predrilled)		
		5x Base plate FR4, 229 x 305 mm (9" x 12"), 35/35 µm (predrilled)		
		5x Base plate FR4, 229 x 305 mm (9" x 12"), 18/18 µm (predrilled)		
		5x Micro Cutter with distance ring 1/8", 36 mm (1.4"), d=0.1-0.15 mm (4-6 mil)		
		3x End Mill (RF) with distance ring 1/8", 36 mm, d = 0.15 mm (6 mil)		
		10x End Mill (RF) with distance ring 1/8", 36 mm (1.4"), d=0.25 mm (10 mil)		
		3x End Mill (RF) with distance ring 1/8", 36 mm (1.4"), d=0.40 mm (16 mil)		
		5x End Mill with distance ring 1/8", 36 mm (1.4"), d=1.00 (39 mil)		
		2x End Mill with distance ring 1/8", 36 mm (1.4"), d=2.00 (79 mil)		
		2x End Mill with distance ring 1/8", 38 mm (1.5"), d=2.00 (79 mil)		
		1x Special tape		
		3x PCB cleaner		
		1x Tool Set 1/8" shaft with distance rings, <b>(115909)</b> details see page 38		
LPKF ProtoMat S62	<b>115791</b>	<b>For use without vacuum table</b> 10x Drill underlay material 229 x 305 mm (9" x 12"), 2 mm (0.08") (predrilled)		
	<b>122157</b>	<b>For use with vacuum table</b> 2x sinter backing plate white 315 x 239 x 5 mm (12.4" x 9.4" x 0.2")		
	both sets additionally contain:	10x Base plate FR4, 229 x 305 mm (9" x 12"), 0/35 µm (predrilled)		
		5x Base plate FR4, 229 x 305 mm (9" x 12"), 35/35 µm (predrilled)		
		5x Base plate FR4, 229 x 305 mm (9" x 12"), 18/18 µm (predrilled)		
		5x Fine line milling with distance ring 1/8", 36 mm (1.4"), d=0.1-0.15 mm (4-6 mil)		
		5x End Mill (RF) with distance ring 1/8", 36 mm (1.4"), d=0.25 mm (10 mil)		
		1x Special tape		
		3x PCB cleaner		
		1x Tool Set 1/8" shaft with distance rings, <b>(115909)</b> details see page 38		
		LPKF ProtoMat S42	<b>117717</b>	<b>For use without vacuum table</b> 10x Drill underlay material 229 x 305 mm (9" x 12"), 2 mm (0.08") (predrilled)
			<b>122158</b>	<b>For use with vacuum table</b> 2x sinter backing plate white 315 x 239 x 5 mm (12.4" x 9.4" x 0.2")
			both sets additionally contain:	10x Base plate FR4, 229 x 305 mm (9" x 12"), 0/35 µm (predrilled)
				5x Base plate FR4, 229 x 305 mm (9" x 12"), 35/35 µm (predrilled)
				1x Special tape
3x PCB cleaner				
1x Tool Set 1/8" shaft with distance rings, <b>(115909)</b> details see page 38				
LPKF ProtoMat H100	<b>113867</b>			10x Base plate FR4, A3, 35/35 µm 10x Base plate FR4, A4, 18/18 µm 10x Base plate FR4, A3, 18/18 µm 10x End Mill 1/8", 38 mm (1.5"), d=1.00 (39 mil) 10x End Mill (RF) 1/8", 36 mm, d=0.25 mm (10 mil) 10x Micro Cutter 1/8", 36 mm, 0.1-0.15 mm (4-6 mil) 1x Tool Set 1/8" shaft, <b>(115909)</b> details see page 38 4x Honeycomb material for vacuum table 1x PCB cleaner



Plotters

Laser

Plating

Multilayer

SMT/Finishing

Tech Guide


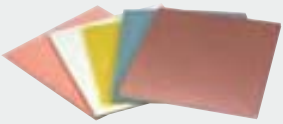

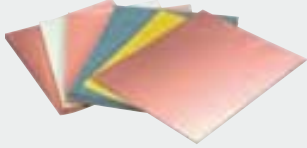
Index

These kits may differ depending on your country of origin. Please contact your local representative for details (page 124).

Machine	Part #	Content
LPKF ProtoMat M60/X60	<b>102377</b>	5x Drill underlay material A4, 2 mm (0.08")
		5x Drill underlay material A3, 2 mm (0.08")
		5x Base plate FR4, A4, 0/35 µm
		2x Base plate FR4, A4, 35/35 µm
		3x Base plate FR4, A4, 18/18 µm
		5x Base plate FR4, A3, 0/35 µm
		5x Base plate FR4, A3, 35/35 µm
		5x Micro Cutter 1/8", 36 mm (1.4"), 0.1–0.15 mm (4–6 mil)
		5x End Mill (RF) 1/8", 36 mm (1.4"), d=0.25 mm (10 mil)
		1x Tool Set 1/8" shaft ( <b>102357</b> )
		1x Special tape
		3x PCB cleaner

## Multilayer sets for multilayer PCB production

LPKF multilayer starter sets include all materials necessary to fabricate the highest-quality multilayer boards, using a ProtoMat circuit board plotter and a MultiPress S.

Part #	Description	Content
<b>121103</b>	4-layer Multilayerset or MultiPress S, Galvanik H- and S-series	Size of material: 229 x 305 mm (9" x 12") Base material for 10 multilayers with 4 layers consisting of:
		20x laminate multilayer 0/5 µm (229 x 305 x 0.2 mm) with protection foil
		40x Prepreg (200 x 275 x 0.1 mm) (7.9" x 10.8" x 0.004")
		5x Pressing cardboard cushion (229 x 305 mm) (9" x 12")
		10x Base plate FR4 18/18 µm (229 x 305 x 1 mm) (9" x 12" x 0.04")
		1x Pack seal rings
<b>121102</b>	4-layer Multilayerset for MultiPress S, ProConduct H- and S-series	Size of material: 229 x 305 mm (9" x 12") Base material for 10 multilayers with 4 layers consisting of:
		20x laminate multilayer 0/18 µm (229 x 305 x 0.2 mm) without protection foil
		40x Prepreg (200 x 275 x 0.1 mm) (7.9" x 10.8" x 0.004")
		5x Pressing cardboard cushion (229 x 305 mm) (9" x 12")
		10x Base plate FR4 18/18 µm (229 x 305 x 1 mm) (9" x 12" x 0.04")
		1x Pack seal rings
<b>121093</b>	6-layer Multilayerset for MultiPress S, Galvanik H- and S-series	Size of material: 229 x 305 mm (9" x 12") Base material for 10 multilayers with 6 layers consisting of:
		20x laminate multilayer 0/5 µm (229 x 305 x 0.2 mm) with protection foil
		60x Prepreg (200 x 275 x 0.1 mm) (7.9" x 10.8" x 0.004")
		5x Pressing cardboard cushion (229 x 305 mm) (9" x 12")
		20x Base plate FR4 18/18 µm (229 x 305 x 0.36 mm) (9" x 12" x 0.014")
		1x Pack seal rings

## Drill underlay material and parts for vacuum table

Raises the board from the work surface to avoid damage to the table during drilling. LPKF underlay boards help prevent drilling debris from clinging to bits.

The honeycomb material for vacuum table supports the workpiece perfectly. Also the sinter backing plates can be changed separately

Part #	Description	Boards per package
<b>116148</b>	Honeycomb material for desktop vacuum table for ProConduct® and ProtoMat S-series vacuum table, 5 mm thick, Ø 3.5 mm	4
<b>114297</b>	Honeycomb material for vacuum table H100, 5 mm thick, Ø 2.5 mm	4
<b>116099</b>	Air-permeable backing material for vacuum table for ProtoMat S-series	4
<b>116002</b>	Air-permeable backing material for vacuum table for ProtoMat H100	2
<b>106388</b>	Drill underlay material, DIN A4, d=2 mm	10
<b>106389</b>	Drill underlay material, DIN A3, d=2 mm	10
<b>115966</b>	Drill underlay material (predrilled), 229 mm x 305 mm (9" x 12"), d=2 mm	10



## Copper-clad FR4 board material

(1.5 mm thickness)

Part #	Description	Boards per package
115971	Base plate FR4, 229 mm x 305 mm (9" x 12"), 5/5 µm with protective Cu-foil, predrilled with 3 mm registration holes	10
115968	Base plate FR4, 229 mm x 305 mm (9" x 12"), 0/18 µm, predrilled with 3 mm registration holes	10
115967	Base plate FR4, 229 mm x 305 mm (9" x 12"), 18/18 µm, predrilled with 3 mm registration holes	10
115969	Base plate FR4, 229 mm x 305 mm (9" x 12"), 0/35 µm, predrilled with 3 mm registration holes	10
115970	Base plate FR4, 229 mm x 305 mm (9" x 12"), 35/35 µm, predrilled with 3 mm registration holes	10
112059	Base plate FR4, A3, 5/5 µm with protective Cu-foil	10
106398	Base plate FR4, A3, 18/18 µm	10
106400	Base plate FR4, A3, 0/35 µm	10
106401	Base plate FR4, A3, 35/35 µm	10



## Multilayer material

Part #	Description	Boards per package
119574	Base plate FR4 18/18 µm, 229 x 305 (k) x 1 mm (9" x 12" x 0.04")	1
119575	Base plate 104 ML, 18/18 µm, 229 x 305 (k) x 0.36 mm (9" x 12" x 0.01")	1
119571	Thin laminate 104 ML, 5/0 µm, 229 x 305 (k) x 0.2 mm (9" x 12" x 0.008") with protection Cu-foil	1
119572	Prepreg type 2125, 275 (k) x 200 x 0.1 mm (10.8" x 7.9" x 0.004") for multilayer	2
119573	Pressing cardboard cushion for multilayer, 229 x 305 x 0.1 mm (9" x 12" x 0.004")	1
119577	Pressing metal sheet for MultiPress S, 229 x 305 x 0.4 mm (9" x 12" x 0.016")	1

## Cleaning pad

Part #	Description	Pads per package
106403	Metal-free ultra-fine PCB cleaning pads remove oxidation from the copper surface of a work piece.	10



## Adhesive tape

Part #	Description
106373	Masking tape to hold work material flat to the work surface and leave no residue or contamination behind.

