

Rigid

#	Layer	Thickness	Description	Dk	Df	Note
	Top Solder	0.020mm	Soldermask JIS-C-5012/IPC-SM840	4,3	0,05	flexibel, photosensitive
1	Top Side	0.030mm	Starting foil 1/4oz. after plating and processing			
		0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
		0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
2	Inner Layer 1	0.018mm	Plated HDI inner layer after plating and processing			
		0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
		0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
3	Inner Layer 2	0.018mm	Plated HDI inner layer after plating and processing			
		0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
		0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
4	Inner Layer 3	0.018mm	Plated HDI inner layer after plating and processing			
		0.050mm	Flexible core IPC-4204/11	3,4	0,002	Flex Polyimide adhesiveless
5	Inner Layer 4	0.018mm	Plated HDI inner layer after plating and processing			
		0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
		0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
6	Inner Layer 5	0.018mm	Plated HDI inner layer after plating and processing			
		0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
		0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
7	Inner Layer 6	0.018mm	Plated HDI inner layer after plating and processing			
		0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
		0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
8	Bottom Side	0.030mm	Starting foil 1/4oz. after plating and processing			
	Bottom Solder	0.020mm	Soldermask JIS-C-5012/IPC-SM840	4,3	0,05	flexibel, photosensitive


Total thickness: 0.378mm

notes:	FLEX8_8F_0,38_12_V2.12			
Final copper thickness according to IPC-6013	PCB Thickness Tolerance: rigid $\pm 10\%$ / flex $\pm 0,05\text{mm}$			
IPC 2223 use A "Flex to install"	customer		created	
	pcb name		approved	
Please regard to our sectional design rules: ► www.we-online.com	engineer		format A4, landscape	
	date			
Template Revision: 02/2021 by Andreas Schilpp / Michael Kress / Werner Öchslen				

Flex

# Layer	Thickness	Description	Dk	Df	Note
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
2 Inner Layer 1	0.018mm	Plated HDI inner layer after plating and processing			
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
3 Inner Layer 2	0.018mm	Plated HDI inner layer after plating and processing			
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
4 Inner Layer 3	0.018mm	Plated HDI inner layer after plating and processing			
	0.050mm	Flexible core IPC-4204/11	3,4	0,002	Flex Polyimide adhesiveless
5 Inner Layer 4	0.018mm	Plated HDI inner layer after plating and processing			
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
6 Inner Layer 5	0.018mm	Plated HDI inner layer after plating and processing			
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
7 Inner Layer 6	0.018mm	Plated HDI inner layer after plating and processing			
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless

Total thickness: 0.278mm

notes:	FLEX8_8F_0,38_12_V2.12			
Final copper thickness according to IPC-6013	PCB Thickness Tolerance: rigid ± 10% / flex ± 0,05mm			
IPC 2223 use A "Flex to install"	customer		created	
	pcb name		approved	
Please regard to our sectional design rules: ▶ www.we-online.com	engineer		format A4, landscape	
	date			
Template Revision: 02/2021 by Andreas Schilpp / Michael Kress / Werner Öchslen				

Flex

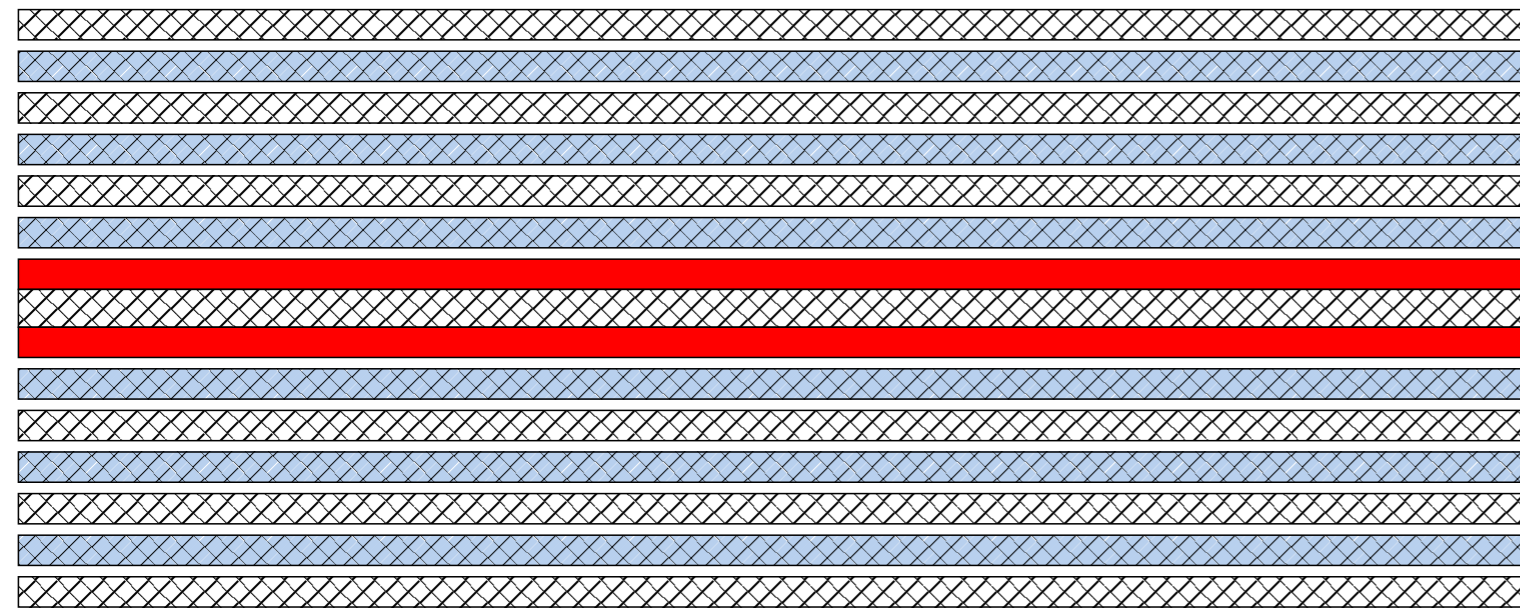
# Layer	Thickness	Description	Dk	Df	Note
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
3 Inner Layer 2	0.018mm	Plated HDI inner layer after plating and processing			
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
4 Inner Layer 3	0.018mm	Plated HDI inner layer after plating and processing			
	0.050mm	Flexible core IPC-4204/11	3,4	0,002	Flex Polyimide adhesiveless
5 Inner Layer 4	0.018mm	Plated HDI inner layer after plating and processing			
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
6 Inner Layer 5	0.018mm	Plated HDI inner layer after plating and processing			
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless

Total thickness: 0.242mm

notes:	FLEX8_8F_0,38_12_V2.12		
Final copper thickness according to IPC-6013	PCB Thickness Tolerance: rigid ± 10% / flex ± 0,05mm		
IPC 2223 use A "Flex to install"	customer	created	
	pcb name	approved	
Please regard to our sectional design rules: ▶ www.we-online.com	engineer	format	A4, landscape
	date		
Template Revision: 02/2021 by Andreas Schilpp / Michael Kress / Werner Öchslen			



Flex



# Layer	Thickness	Description	Dk	Df	Note
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
4 Inner Layer 3	0.018mm	Plated HDI inner layer after plating and processing			
	0.050mm	Flexible core IPC-4204/11	3,4	0,002	Flex Polyimide adhesiveless
5 Inner Layer 4	0.018mm	Plated HDI inner layer after plating and processing			
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless
	0.015mm	Bonding film IPC-4204/2 (part of)	3	0,019	Flexible Adhesive (Epoxy)
	0.005mm	Flexible core IPC-4204/11	3,4	0,003	Flex Polyimide adhesiveless

Total thickness: 0.206mm

notes:	FLEX8_8F_0,38_12_V2.12		
Final copper thickness according to IPC-6013	PCB Thickness Tolerance: rigid ± 10% / flex ± 0,05mm		
IPC 2223 use A "Flex to install"	customer	created	
	pcb name	approved	
Please regard to our sectional design rules: ▶ www.we-online.com	engineer	format	A4, landscape
	date		
Template Revision: 02/2021 by Andreas Schilpp / Michael Kress / Werner Öchslen			

