

laminates available at TraX : All laminates

### FR4 Laminates (Standard & Mid TG)

#### Mid-TG Multilayer Substrate - FR4 (TG150)

#### Single Sided / Double Sided / PTH Substrate - FR4 (TG140)

Dielectric Constant - 4.2

Dielectric Constant - 4.2

This refers to dielectric thickness ONLY

Cu Thickness in  $\mu$

Thickness includes dielectric and Cu

Cu Thickness in  $\mu$

0.1mm	17/17	35/35		0.41mm	17/17						
0.15mm	17/17			0.8mm	17/17						
0.2mm	17/17	35/35	70/70	1.00mm	17/17						
0.35mm	17/17	35/35	70/70	1.55mm	17/17	35/35	35/0	70/70	70/0	105/105	
0.51mm	17/17	35/35		2.0mm	17/17						
0.71mm	17/17	35/35	70/70	2.40mm		35/35		70/70			
0.93mm	17/17	35/35		3.20mm		35/35					
1.2mm	17/17	35/35									
1.55mm		35/35									
2.4mm		35/35									
<u>Pre Preg - FR4(TG150)</u>	<u>Base Thickness in mm</u>										
1080	0.070mm										
2116	0.120mm										
7628	0.187mm										
				<u>Thickness</u>		0.012mm	0.018mm	0.035mm	0.07mm	0.105mm	

Copper Foil used in Multilayer Builds

### HiTG FR4 Laminates

#### Nelco n4000-29 (TG185)

Dielectric Constant - 4.2

Thickness

Cu Thickness in  $\mu$

n4000-29 Pre Preg

Base Thickness

0.0508mm (capacitance)		35/35		106	0.060mm
0.089mm	17/35			1080	0.075mm
0.1016mm	17/17	35/35		2113	0.100mm
0.127mm	17/17			2116	0.135mm
0.1524mm	17/17	35/35			
0.2032mm	17/17	35/35	70/70		
0.254mm	17/17	35/35			
0.3556mm	17/17	35/35	70/70		
0.381mm	17/17				
0.508mm	17/17	35/35			

**RF Laminates**

**Mercury Wave 9350 (TG200)**

**Rogers 4003C (TG280)**

Dielectric Constant - 3.5

Dielectric Constant - 3.38

<u>Thickness</u>	<u>Cu Thickness in <math>\mu</math></u>		<u>Thickness</u>	<u>Cu Thickness in <math>\mu</math></u>	
0.1016mm	17/17	35/35	0.2mm	17/17	35/35
0.211mm	17/17	35/35	0.5mm	17/17	35/35
0.508mm	17/17	35/35	0.8mm	17/17	35/35
0.812mm	17/17	35/35	1.52mm	17/17	35/35
0.254mm	17/17				
1.524mm	17/17	35/35			
<u>Pre Preg</u>	<u>Base Thickness in mm</u>		Rogers 3001 Bonding Film	0.038mm	
106	0.043mm				
1080	0.082mm				
2116	0.105mm				

**PTFE Laminates (limited stocks)**

**Nelco NX9250ST**

**Nelco NY9220ST**

**Taconic TLX**

Dielectric Constant - 2.5

Dielectric Constant - 2.0

Dielectric Constant - 2.5

<u>Thickness</u>	<u>Cu Thickness in <math>\mu</math></u>		<u>Thickness</u>	<u>Cu Thickness in <math>\mu</math></u>		<u>Thickness</u>	<u>Cu Thickness in <math>\mu</math></u>	
0.5mm	35/35		0.254mm	17/17		0.5mm	35/35	
1.1mm	35/35					1.1mm	35/35	

**High Speed Digital / Low Loss Laminates**

**Meteorwave 4000 (TG200)**

**Nelco N4800-20/20 si (TG200)**

Dielectric Constant - 3.4

Dielectric Constant - (various)

<u>Thickness</u>	<u>Cu Thickness in</u>		<u>Thickness</u>	<u>Cu Thickness in <math>\mu</math></u>	
0.101mm	17/17		0.051mm (20si)		70/70
0.787mm	17/17		0.127mm (20si)	17/17	
<u>Pre Preg</u>	<u>Base Thickness in mm</u>		0.1mm (20)	17/17	
1080	0.074mm		<u>Pre Preg</u>	<u>Base Thickness</u>	
			1080 (20si)	0.079mm	
			2116 (20si)	0.147mm	
			2116 (20)	0.122mm	