

## Technical Specification Taconic RF-35 PTFE

This is the standard base material used on the PCB Train PTFE service.

### Introduction

RF-35 is a good choice for low cost, high volume commercial microwave and radio frequency applications. RF-35 has excellent peel strength, a critical aspect whenever rework is required. RF-35's Tg is over 600°F (315°C). RF-35's ultra low moisture absorption rate and low dissipation factor minimize phase shift with frequency. RF-35 is dimensionally stable due to the use of woven fabrics in its design. RF-35 laminates exhibit flammability of V-0, and are tested in accordance with IPC-TM-650.

### Characteristics

- Low Cost
- Excellent Peel Strength
- Exceptionally Low Dissipation Factor
- Low Moisture Absorption
- Enhanced Surface Smoothness
- Very High Thermal Reliability

### Applications

- Power Amplifier, TMA, TMB
- Filter, Coupler, Splitter, Combiner, Mixer
- Antenna
- Backpanels
- Passive Components
- Medical Scanners

### Specification

Material: PTFE Ceramic woven glass double sided 1 oz copper clad laminate  
Thickness: 0.76 mm +/- 0.05 mm  
Copper thickness: 35 microns  
Dk: 3.50  
DF: 0.0018  
Tg: 315 deg C  
Volume Resistivity Mohm/cm: 1.3 x 10,000,000,000  
Surface Resistivity Mohm: 1.5 x 1,000,000,000  
Flexural strength K psi MD : >22  
Flexural strength K psi CD : >18  
Moisture absorption % : 0.02  
Thermal conductivity W/m/K: 0.24  
Co-efficient of thermal expansion x: 19  
Co-efficient of thermal expansion y: 24  
Co-efficient of thermal expansion z: 64  
Peel strength lbs/in 1oz Cu: >10

### References

Taconic High Performance Laminates guide:

[http://www.taconic-add.com/pdf/Taconic-laminate\\_material\\_guide\[1\].pdf](http://www.taconic-add.com/pdf/Taconic-laminate_material_guide[1].pdf)

Taconic RF35 specification sheet : <http://www.taconic-add.com/pdf/rf35.pdf>