

Taconic High Performance Materials - Typical Values

| Part # | Composition | Dk | Dk Tolerance + / - | Df | Flex Strength kpsi | | Moisture Absorption % | Thermal Conductivity W/M*K | CTE * ppm/°C | | | Peel Strength lbs/in Very Low Profile Cu |
|-------------------|----------------------|----------------------------|-----------------------|--------------------------------|-----------------------|-----|--------------------------|--|-----------------|----|---------|---|
| | | | | | MD | CD | | | x | y | z | |
| TLY-5A | PTFE - Glass | 2.17 ^(a) | 0.02 | 0.0009 ^(a) | 14 | 13 | 0.02 | 0.22 | 20 | 20 | 280 | 12 |
| TLY-5 | PTFE - Glass | 2.20 ^(a) | 0.02 | 0.0009 ^(a) | 14 | 13 | 0.02 | 0.22 | 20 | 20 | 280 | 12 |
| TLY-5Z | PTFE - Glass | 2.20 ^(a) | 0.04 | 0.0015 ^(a) | 17 | 12 | 0.03 | 0.20 | 30 | 40 | 130 | 7 |
| TLP-5 | PTFE - Glass | 2.20 ^(a) | 0.03 | 0.0009 ^(a) | 12 | 10 | 0.02 | 0.22 | 20 | 20 | 280 | 10 |
| TLY-3 | PTFE - Glass | 2.33 ^(a) | 0.02 | 0.0012 ^(a) | 14 | 13 | 0.02 | 0.22 | 20 | 20 | 280 | 12 |
| TLX-6, 7, 8, 9, 0 | PTFE - Glass | 2.45 - 2.65 ^(a) | 0.04 | 0.0015 - 0.0021 ^(a) | 23 | 17 | 0.02 | 0.22 | 21 | 23 | 215 | 12 |
| TLA-6 | PTFE - Glass | 2.62 | 0.05 | 0.0012 | 13 | 12 | 0.02 | 0.22 | 9 | 12 | 130-145 | 10 |
| EZ-IO | PTFE Ceramic - Glass | 2.80 ^(c) | 0.05 | 0.0012 ^(c) | 16 | 8 | 0.12 | 0.42 | 13 | 24 | 63 | 5 - 7 |
| TSM-DS3M | PTFE Ceramic - Glass | 2.94 ^(c) | 0.04 | 0.0011 ^(c) | 12 | 8 | 0.07 | 0.65 | 10 | 16 | 23 | 8 |
| TLE-95 | PTFE - Glass | 2.95 ^(a) | 0.05 | 0.0026 ^(a) | 24 | 18 | 0.02 | 0.28 ^(c) | 9 | 12 | 70 | 12 |
| RF-30-7H | PTFE Ceramic - Glass | 2.97 ^(b) | 0.05 | 0.0012 ^(b) | 11 | 8.5 | 0.02 | 0.23 | 17 | 20 | 150 | 10 |
| RF-30A | PTFE Ceramic - Glass | 2.97 ^(b) | 0.05 | 0.0013 ^(b) | 19 | 15 | 0.05 | 0.42 | 8 | 10 | 60 | 12 |
| TSM-DS3 | PTFE Ceramic - Glass | 3.00 ^(c) | 0.04 | 0.0011 ^(c) | 12 | 8 | 0.07 | 0.65 | 10 | 16 | 23 | 8 |
| RF-30 | PTFE Ceramic - Glass | 3.00 ^(b) | 0.10 | 0.0014 ^(b) | 20 | 16 | 0.02 | 0.20 | 11 | 21 | 208 | 10 |
| TLC-30, 32 | PTFE - Glass | 3.00 - 3.20 ^(a) | 0.05 | 0.0028 - 0.0003 ^(a) | 24 | 19 | 0.02 | 0.24 | 9 | 12 | 70 | 12 |
| RF-35 | PTFE Ceramic - Glass | 3.50 ^(b) | 0.10 | 0.0018 ^(b) | 22 | 18 | 0.03 | 0.32 ^(c) | 19 | 24 | 64 | 10 |
| RF-35TC | PTFE Ceramic - Glass | 3.50 ^(c) | 0.05 | 0.0011 ^(c) | 13 | 12 | 0.05 | 0.60 [†] / 0.92 ^{††} | 11 | 13 | 34 | 7 |
| RF-35A2 | PTFE Ceramic - Glass | 3.50 ^(c) | 0.05 | 0.0018 ^(c) | 16 | 8 | 0.03 | 0.29 | 8 | 10 | 104 | 12 |
| TLF-35A | PTFE Ceramic - Glass | 3.50 ^(b) | 0.05 | 0.0020 ^(b) | 19 | 15 | 0.02 | 0.36 | 21 | 23 | 85 | 10 |
| RF-41, 43, 45 | PTFE Ceramic - Glass | 4.10 - 4.50 ^(d) | 0.15 | 0.0033 - 0.0038 ^(d) | 21 | 19 | 0.02, 0.02, 0.04 | 0.29, 0.30, 0.33 | 9 | 12 | 96 | 8 |
| TRF-41, 43, 45 | PTFE Ceramic - Glass | 4.30 | 0.15 | 0.0035 | 17 | 15 | 0.06 | 0.43 | 9 | 9 | 40 | 8 |
| RF-60TC | PTFE Ceramic - Glass | 6.15 ^(c) | 0.15 | 0.0020 ^(c) | 10 | 9 | 0.03 | 0.90 [†] / 1.05 ^{††} | 10 | 10 | 40 | 8 |
| RF-10 | PTFE Ceramic - Glass | 10.20 ^(c) | 0.30 | 0.0025 | 14 | 10 | 0.08 | 0.85 | 16 | 20 | 25 | 10 |

Prepregs/Bonding Films

| | | | | | | | | | | | | |
|--|--------------------|---------------------|------|-----------------------|----|---|------|------|----|----|----|--|
| HT-1.5 | Thermoplastic Film | 2.35 | | 0.0025 | | | 0.01 | 0.22 | | | | |
| <i>fastRise</i> [™] 27 (FR-27) [‡] | Prepreg/Thermoset | 2.75 ^(c) | 0.04 | 0.0014 ^(c) | | | 0.08 | 0.25 | 59 | 70 | 72 | |
| <i>fastRise</i> [™] 7 (FR-7) [‡] | Prepreg/Thermoset | 7.45 ^(c) | | 0.0034 ^(c) | 15 | 7 | 0.10 | 0.43 | 10 | 17 | 62 | |

- (a) Measured by IPC-TM-650 method 2.5.5.5 (stripline resonator) at 10 GHz
 (b) Measured by IPC-TM-650 method 2.5.5.5.1 (modified stripline) at 1.9 GHz
 (c) Measured by IPC-TM-650 method 2.5.5.5.1 (modified stripline) at 10 GHz
 (d) Measured by IPC-TM-650 method 2.5.5.6 (full sheet resonant)
 (e) Measured by ASTM E1461

*CTE values vary by temperature range of measurement. Please inquire for specific product temperature range.

UL Rating for all products: 94 V-O except products designated with [‡]

[†] Unclad ^{††} 1 oz. copper