

Approved base materials for high-frequency and radar applications

| Material group | Manufacturer | Description | Permittivity at 10 GHz | Loss factor at 10 GHz | Design | Remarks |
|--------------------------------|--------------|--------------|------------------------|-----------------------|---|--|
| Epoxy-based | Rogers Corp. | RO4003C™ | 3.38 | 0.0027 | Hydrocarbon resin matrix, woven glass, inorganic fillers | Colour white |
| | Rogers Corp. | RO4350B™ | 3.48 | 0.0037 | | |
| | Rogers Corp. | RO4835™ | 3.48 | 0.0037 | | Reduced oxidation process |
| | Rogers Corp. | RO4450F™ | 3.52 | 0.0040 | | Matching prepreg for RO4000 series |
| | Isola | I-Tera® MT40 | 3.38... 3.75 | 0.0028... 0.0035 | Epoxy resin, woven glass, inorganic fillers, very low profile copper film | Alternative to RO4000, various dielectric properties selectable, greater prepreg variety |
| | Panasonic | Megtron 6 | 3.55 | 0.0040 | PPE resin, woven glass, inorganic fillers | |
| Polytetrafluoroethylene (PTFE) | Rogers Corp. | RO3003™ | 3.00 | 0.0013 | PTFE, inorganic fillers | Standard for 77GHz automotive radar |
| | Rogers Corp. | RO3203™ | 3.02 | 0.0016 | PTFE, woven glass, inorganic fillers | |
| | Taconic | NF-30 | 3.00 | 0.0013 | PTFE, inorganic fillers | possible alternative to RO3003™ |
| | Taconic | RF-35 | 3.50 | 0.0018 | Woven glass, inorganic fillers | |
| | Taconic | TLE-95 | 2.95 | 0.0019 | Woven glass | |
| | Taconic | TLC-30 | 3.00 | 0.0030 | Woven glass | |
| | Taconic | TLC-32 | 3.20 | 0.0030 | Woven glass | |
| | Taconic | TLX-8 | 2.55 | 0.0017 | Woven glass | Only for 2-sided PCBs |

The figures stated are manufacturer's data sheet specifications and not guaranteed figures.