

# DESIGN CRITERIA CHECKLIST

Critical factors to consider when choosing a potting or encapsulating compound.



## Thermal Properties

- Thermal conductivity (W/mk) \_\_\_\_\_
- Glass transition (Tg) \_\_\_\_\_
- Coefficient of thermal expansion (CTE) \_\_\_\_\_
- Hardness and cross-link density \_\_\_\_\_
- Operating temperature range \_\_\_\_\_



## Environmental Conditions

- Elevated temperature \_\_\_\_\_
- Thermal cycling \_\_\_\_\_
- Thermal shock \_\_\_\_\_
- Chemical exposure \_\_\_\_\_
- Moisture resistance \_\_\_\_\_



## Material Properties

- Hardness \_\_\_\_\_
- Mechanical properties \_\_\_\_\_  
  
Tensile strength \_\_\_\_\_  
Elongation \_\_\_\_\_  
Modulus \_\_\_\_\_
- Electrical properties \_\_\_\_\_  
  
Dielectric constant \_\_\_\_\_  
Dissipation factor \_\_\_\_\_  
Volume resistivity \_\_\_\_\_  
Dielectric Strength \_\_\_\_\_
- Regulatory compliance-chemistry \_\_\_\_\_



## Process Considerations

- Viscosity/Process temperature \_\_\_\_\_
- Pot life/Gel time \_\_\_\_\_
- Cure time \_\_\_\_\_
- Potting challenges \_\_\_\_\_  
  
Part geometry \_\_\_\_\_  
Component configuration \_\_\_\_\_  
Mass of application \_\_\_\_\_  
Vacuum impregnation vs non-vacuum potting \_\_\_\_\_
- Dispensing methods \_\_\_\_\_  
  
1 or 2-component material \_\_\_\_\_  
Equipment selection \_\_\_\_\_



## Material Handling

- Moisture sensitivity \_\_\_\_\_
- Homogeneous \_\_\_\_\_
- Material prep before use \_\_\_\_\_
- Proper container sealing \_\_\_\_\_
- Safety considerations \_\_\_\_\_  
  
Proper PPE \_\_\_\_\_  
Ventilation \_\_\_\_\_  
Understanding chemicals \_\_\_\_\_  
Employee training \_\_\_\_\_  
Material disposal \_\_\_\_\_

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