


3M™ Scotchcast™ Liquid Resins

Troubleshooting

This troubleshooting chart has been developed to assist 3M customers in identifying and solving some possible problems that can occur when using 3M™ Scotchcast™ Liquid Resins.

Should you need further assistance, contact your local 3M Sales Representative or area electrical distributor.

Cause and Solution	Problem												
	Uncured extensive curing	Thermoplastic but becomes liquid, soft or tacky even after	Charring or Discoloring in center	Oozing and so on	Cracking down or	Poor Adhesion lead wires and so on	Crazing	Distortion	Striking remove	Soft Spots cured products	Blemishes rough or pitted	Voids in the casting	
Contamination Moisture/Keep covered Dirt/Clean parts and keep them covered Excess mold release/Use sparingly Oxidized surfaces/Remove oxide Incompatible insulation or components/ Change insulation													
Rough mold surface/Polish mold													
Undercuts in mold/Remove undercuts Insufficient mold release/Use more mold release Inadequate mold release/Use different mold release Permanent-type release worn away/Resurface mold Mold not broken in/Use mold													
Insufficient vacuum/Adjust vacuum Resin viscosity too high/Select resin with lower viscosity or warm resin to reduce viscosity Component design/Check design for undercuts													
Difficult-to-bond-to surface (e.g., plastics)/Evaluate Scotchcast primers; "rough up" surface Nonstick surface (PTFE, etc.)/Change materials													
Incorrect mix ratio/Check equipment and procedures, must be within ± 2% Insufficient mixing/Having proportioned parts A and B correctly, mix thoroughly													
Resin not fully cured/Check oven temperature. Is resin at cure temperature at onset of timed cure cycle?													
Wrong resin choice/May need more flexible system or a filled system													
Poor component or mold design/Change design													
Cure temperature too high/Lower temperature Temperature reached as a result of exotherm/Check exotherm. Use smaller mass of resin													
Excessive shrinkage/Filled resins exhibit less shrinkage and should be considered if this problem persists													

 Indicates cause and effect