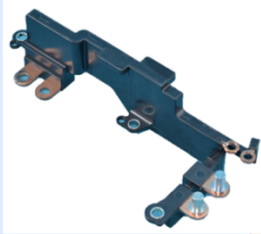


Overmolding



APPLICATIONS (CTD) - CONFIDENTIAL

Metal overmolding with thermoplastics (TP)



busbar (PPS-metal)

Metal overmolding with elastomers



engine crankshaft seal (FKM-metal)

TP overmolding with TP /elastomers



hand pruner (ixef1022-silicone)

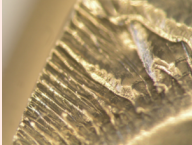
TPC/TSC overmolding with TP /elastomers

TECHNICAL CONCERNS /CHALLENGES/ISSUES

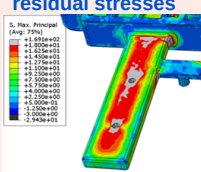
thermal shock (cycling)



stress-cracking (ESCR)



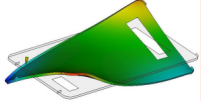
residual stresses



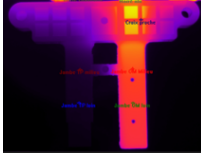
core shift



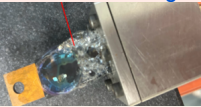
warpage (with thin metal frames)



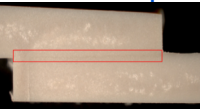
metal overmolding - thermal studies



adhesion to metal and tightness



adhesion to thermoplastics



CAPABILITIES

Overmolding Capabilities

(all regions)









...

current overmolding projects - status (Aug 2024)

adhesion to thermoplastic or thermoset composites



insert overmolding vs. 2K molding

[Link to EV busbar program
\(electrification initiative\)](#)

[overall document about the use of VE in
busbar](#)

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