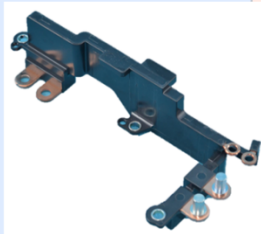
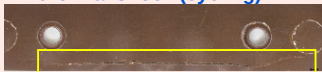
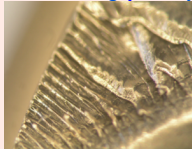
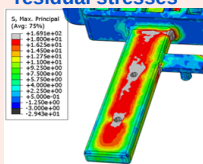
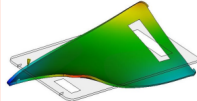
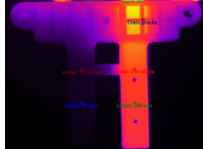
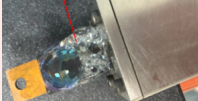
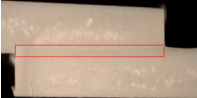


# Overmolding



| APPLICATIONS (CTD) - CONFIDENTIAL          |                                                                                                                         | TECHNICAL CONCERNS /CHALLENGES/ISSUES                                                                                          | CAPABILITIES                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Metal overmolding with thermoplastics (TP) | <br>busbar (PPS-metal)                 | <p>thermal shock (cycling)</p>                | Overmolding Capabilities<br><br>(all regions)<br><br><br><br><br><br>... |
|                                            |                                                                                                                         | <p>stress-cracking (ESCR)</p>                 |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Metal overmolding with elastomers          | <br>engine crankshaft seal (FKM-metal) | <p>residual stresses</p>                      |                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                            |                                                                                                                         | <p>core shift</p>                           |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| TP overmolding with TP /elastomers         | <br>hand pruner (ixef1022-silicone)  | <p>warpage (with thin metal frames)</p>     |                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                            |                                                                                                                         | <p>metal overmolding - thermal studies</p>  |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| TPC/TSC overmolding with TP /elastomers    |                                                                                                                         | <p>adhesion to metal and tightness</p>      |                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                            |                                                                                                                         | <p>adhesion to thermoplastics</p>           |                                                                                                                                                                                                                                                                                                                                                                                                                         |

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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| Brussels          | Guy               | Benoit Devaux       |             |          |               |                 |               |
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