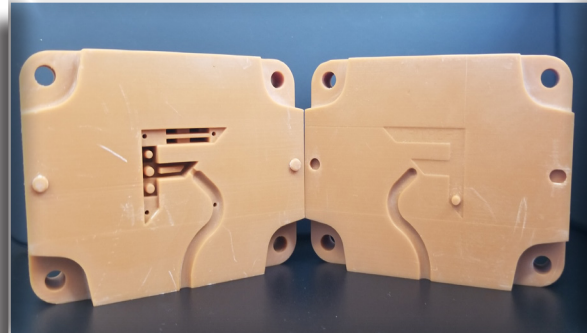


PUSHING THE BOUNDARIES OF 3D PRINTED TOOLS

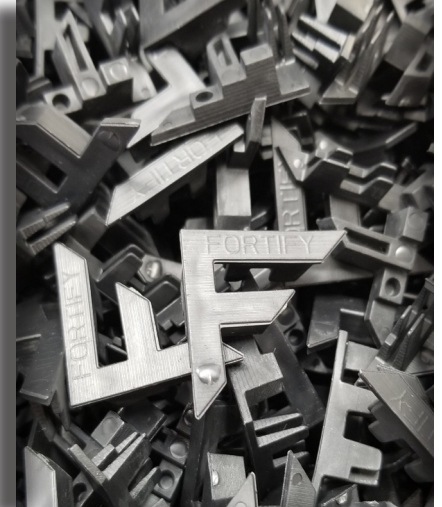
Machined aluminum mold inserts have become a standard approach for prototype and low volume injection mold runs. While this saves time and money compared to steel tools, they are still costly and slow to produce. Other 3D printed tools have been used to address this problem but to date they have not been robust enough to perform on most customer applications.

FORTIFY DIGITAL TOOLING

Introducing Fortify Digital Tooling, a 3D print material system you can rely on to reach your production goals. This solution for low volume injection mold tooling is available for trials now from Fortify. The material system is based on Loctite resin reinforced through Fortify's proprietary DCM (Digital Composite Manufacturing) process.



This Fortify tool produced 1,000 polypropylene parts under the following operating parameters:



**WHAT
WILL
YOU
FORTIFY?**

Material Temperature:	450 F	Cycle Time:	65s
Injection Pressure:	3100psi	Mold Clamp:	Injection Time: 5s
Injection Speed:	5mm/s		Cooling Time: 30s
Pack Pressure:	1200psi	Mold Open:	Cooling Time: 30s
Clamp Tonnage:	5 tons		



Fortify Digital Tooling insert and molded parts for an automotive application.

FORTIFY DIGITAL TOOLING PARAMETERS

Part Size: 100 mm or smaller
Cycle Time: 1 - 2 minutes
Mold Part Tolerances: +/- .127 mm
Temperature: Up to 320 C

Qualified Materials: TPU
Acetal
ABS
Polypropylene
Nylon 6
GF Nylon
Polycarbonate

DIGITAL COMPOSITE MANUFACTURING (DCM)

DCM delivers new levels of additively manufactured part performance by introducing aligned reinforcing fibers. The technology combines magnetics and DLP (digital light processing) to produce custom microstructures in high-resolution 3D printed composite parts.

Fortify Digital Tooling is
powered by resin from

LOCTITE[®]

Contact sales@3DFortify.com to discuss your molding needs and receive a free copy of Fortify's Injection Molding Design Guidelines.



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