

ADVANCED FUNCTIONAL MATERIALS

What makes you so
turbulent?

SOFT MECHANICS

On page 2129, W. J. Stark and co-workers demonstrate a new type of mammalian vein-inspired soft silicone liquid pump, which is based on lost-wax casting of 3D printed injection molds. By functionalizing the material with contrast agents, inner workings can be visualized in real-time by the use of medical ultrasonography. The figure shows this visualization process, performed by an untrained user, namely an engineer.

Soft Pump

Type: mammalian vein inspired
soft pump
Details: four-segmented,
fabric-layer reinforced
Modification: contrast agent
incorporation