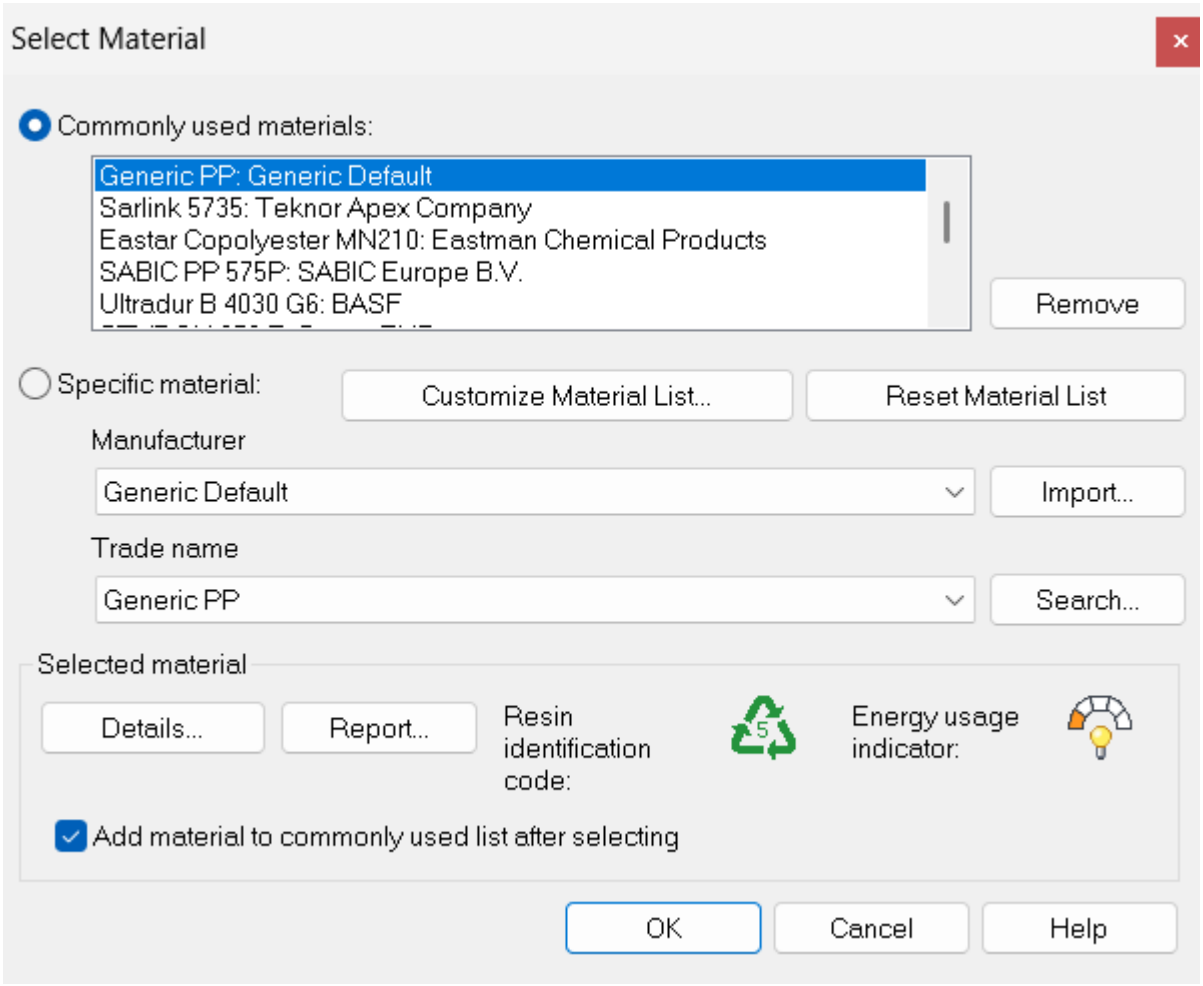
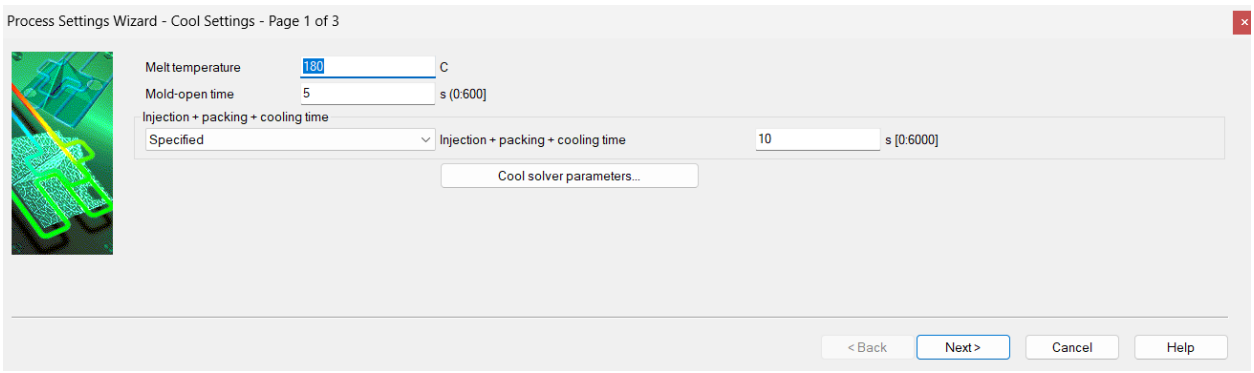
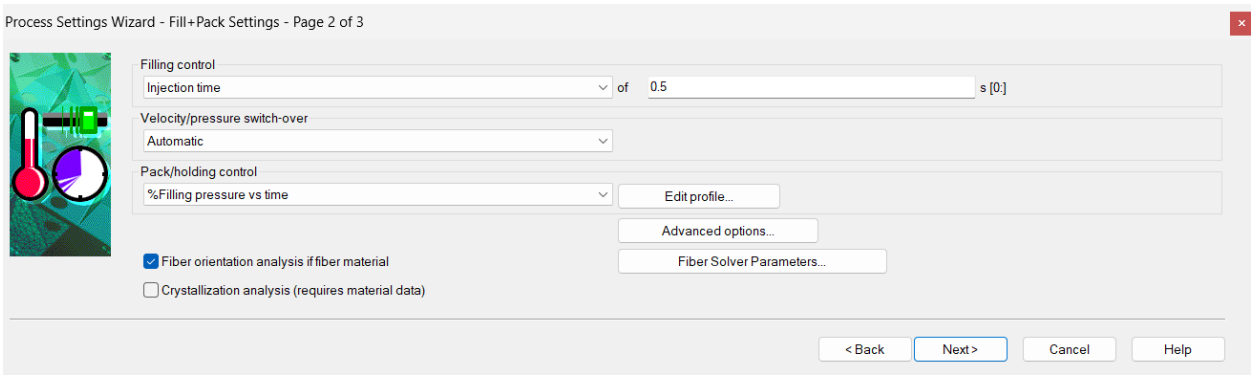
BASE

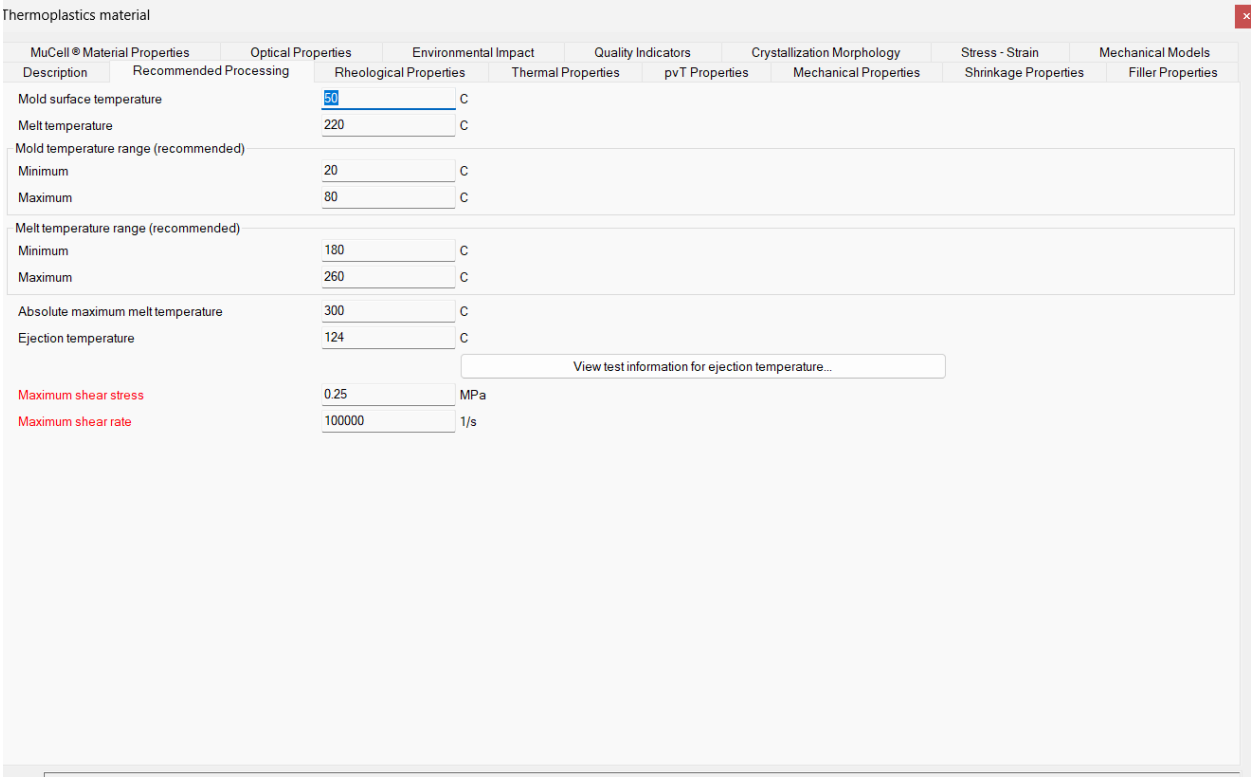
1. Material used and their recommended values



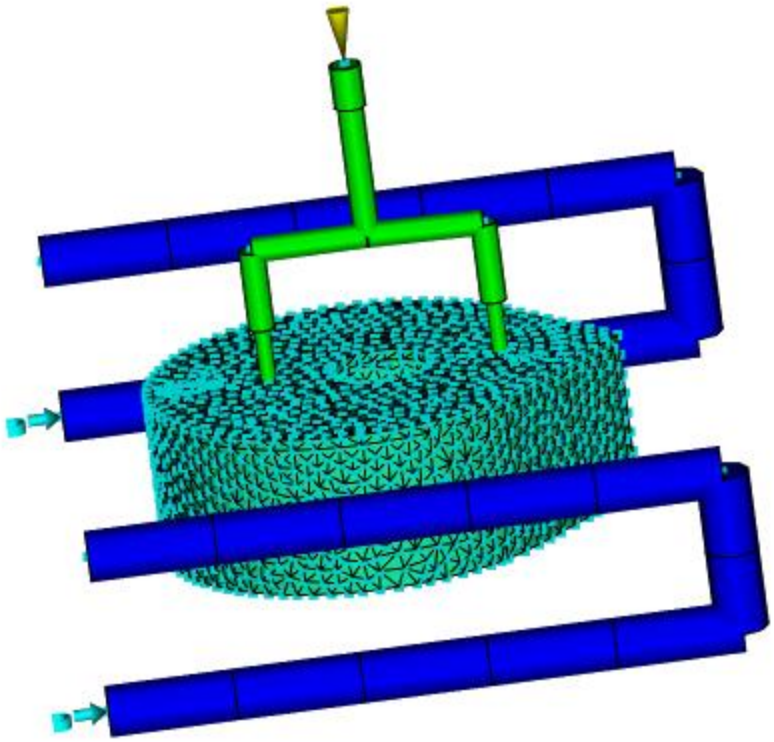
2. Good mesh(NO ERRORS)
3. Changes made





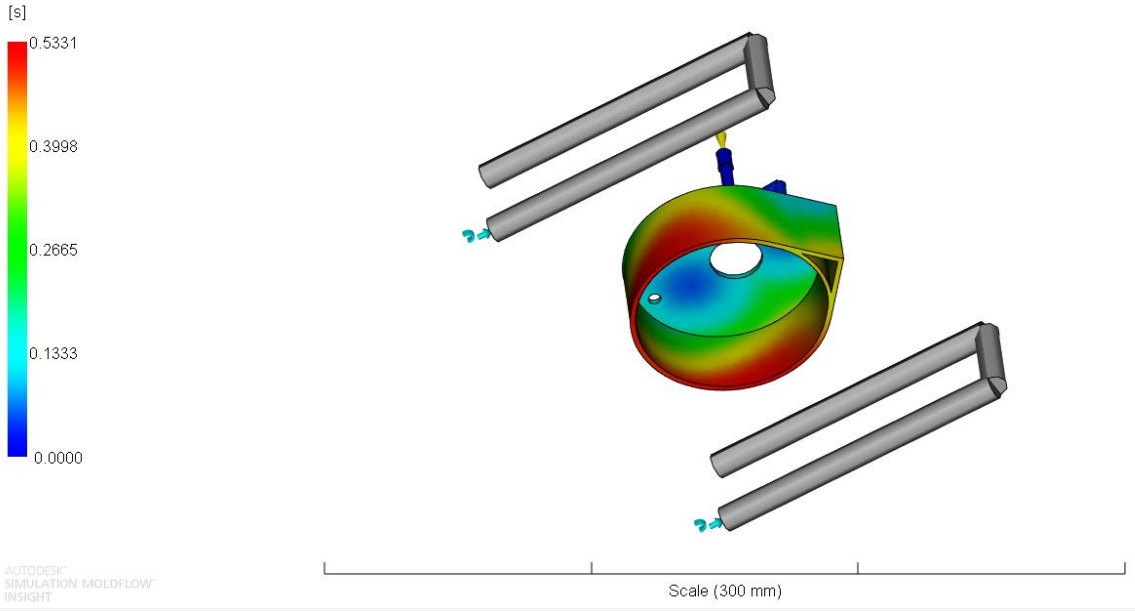


4. Cooling channels and Cold runner:because it is cheap

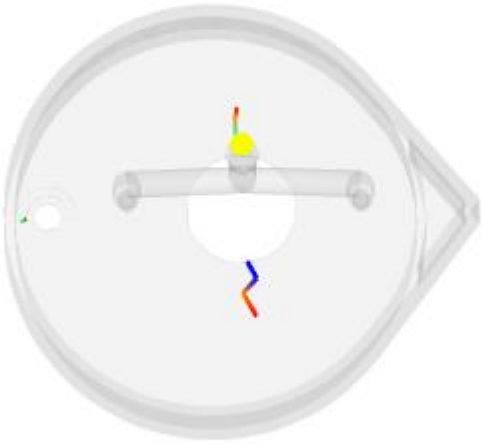


5. Fill time

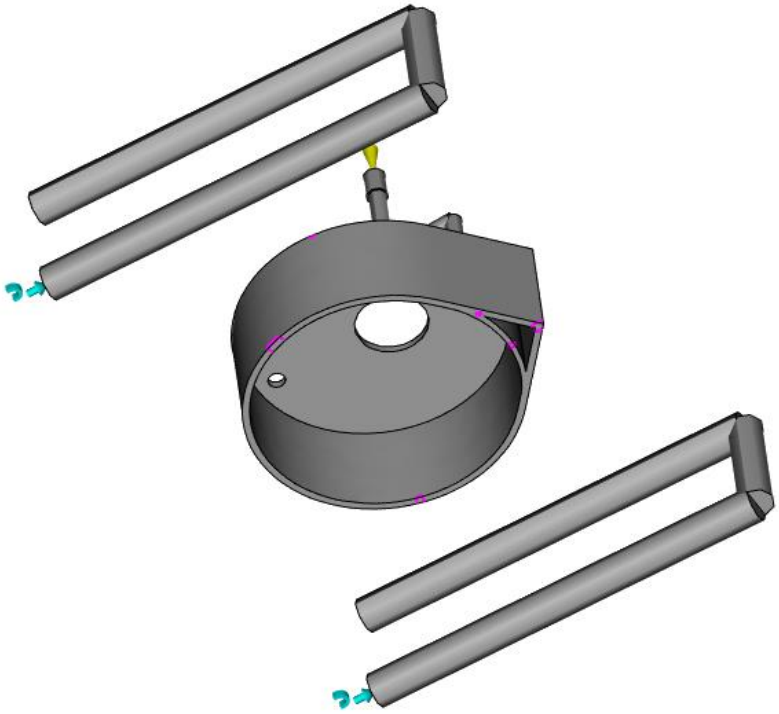
Fill time
= 0.5331[s]



6. Weld lines

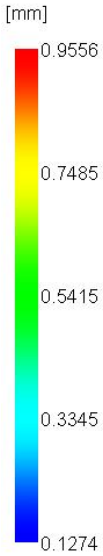


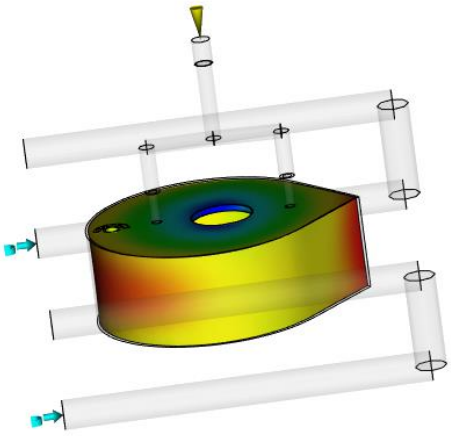
7. Air traps(you cant see all of it)



8. Deflection

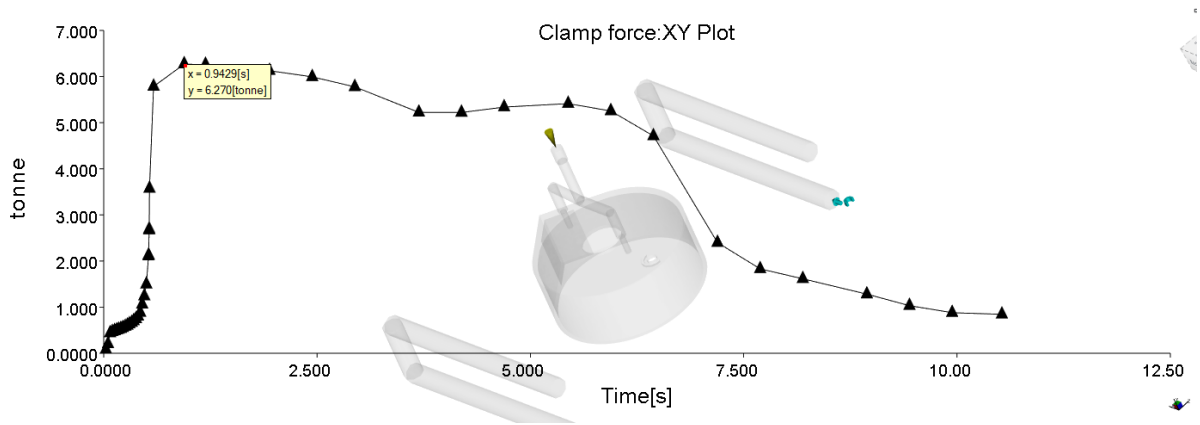
Deflection, all effects:Deflection
Scale Factor = 1.000





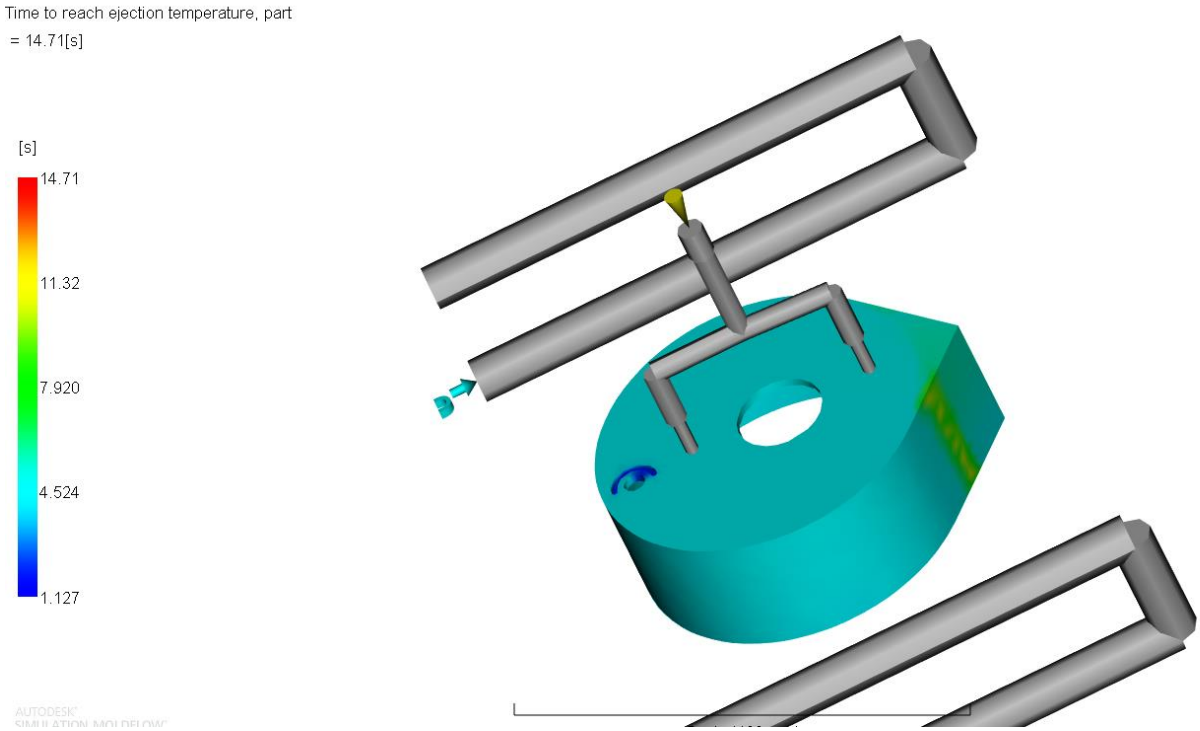
9.

10. Clamp force

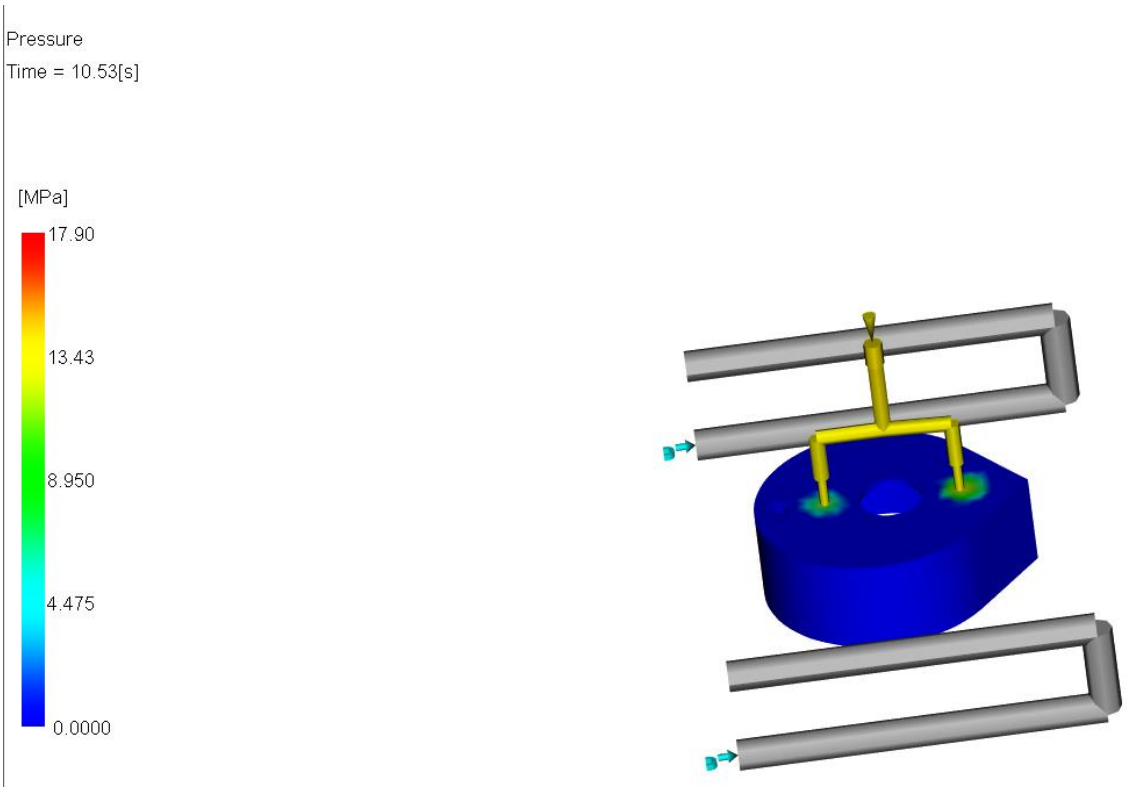


For a clamping force requirement of 6 tons, an all-electric injection molding machine is recommended for this operation. This type of machine offers high precision, low energy consumption, clean operation, and excellent repeatability, making it well suited for molding small polypropylene (PP) components such as cups or bottle parts.

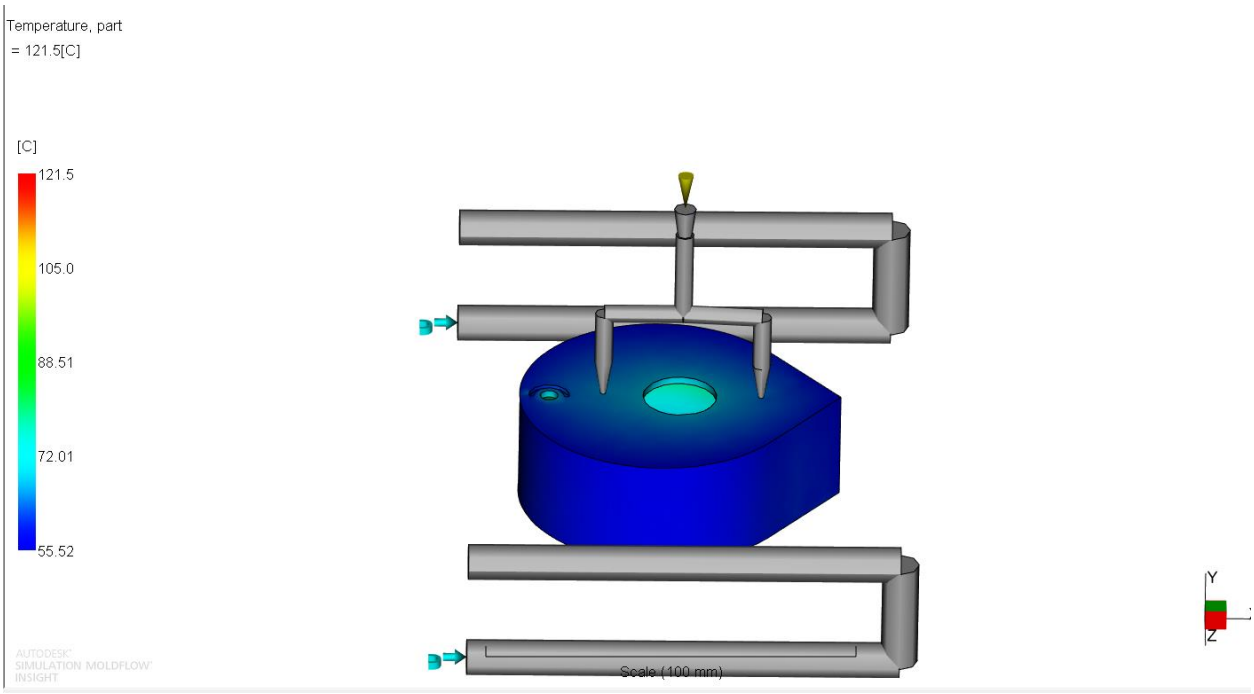
11. Time to reach injection temperature (cool)

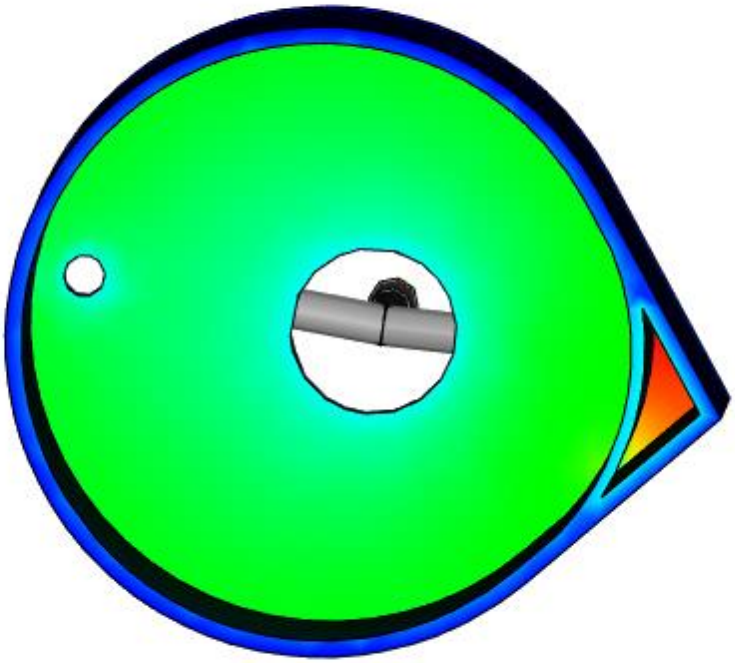


12. Pressure



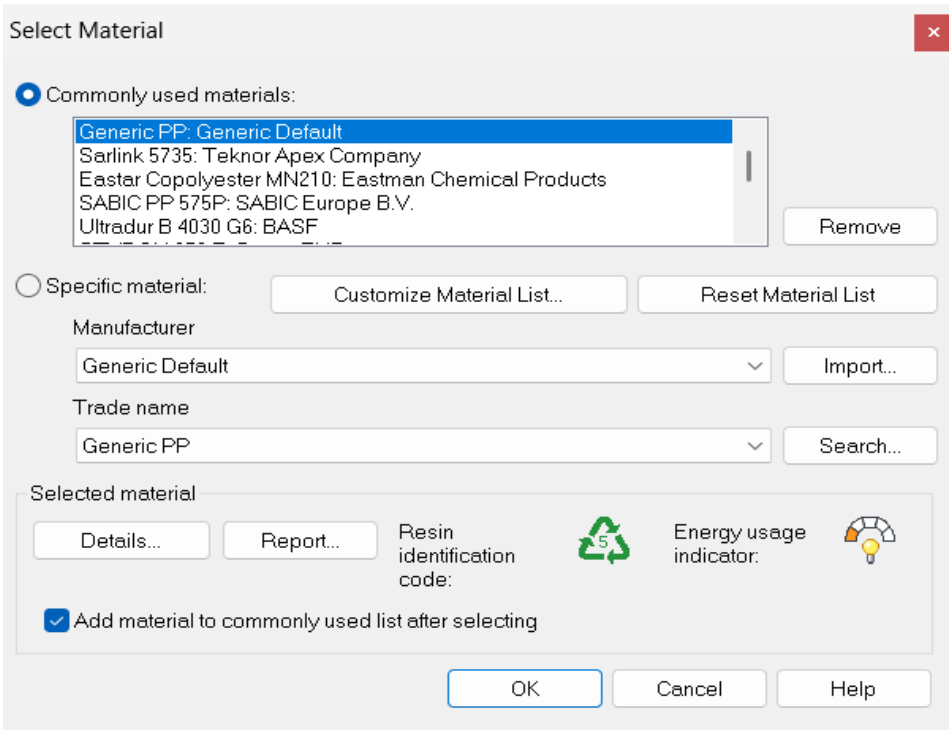
13. Temperature part


Temperature, part
= 121.5[C]
[C]
121.5
105.0
88.51
72.01
55.52
AUTODESK
SIMULATION MOLDFLOW
INSIGHT
Scale (100 mm)
Y
Z

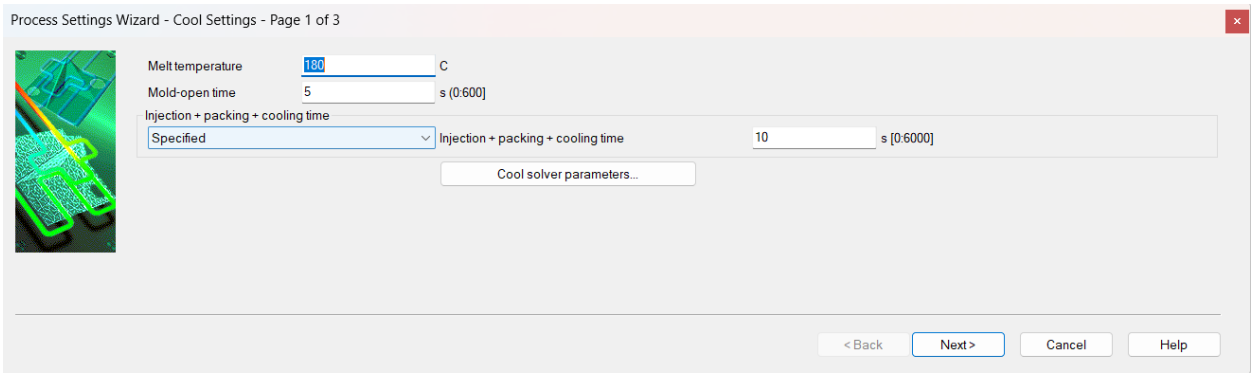


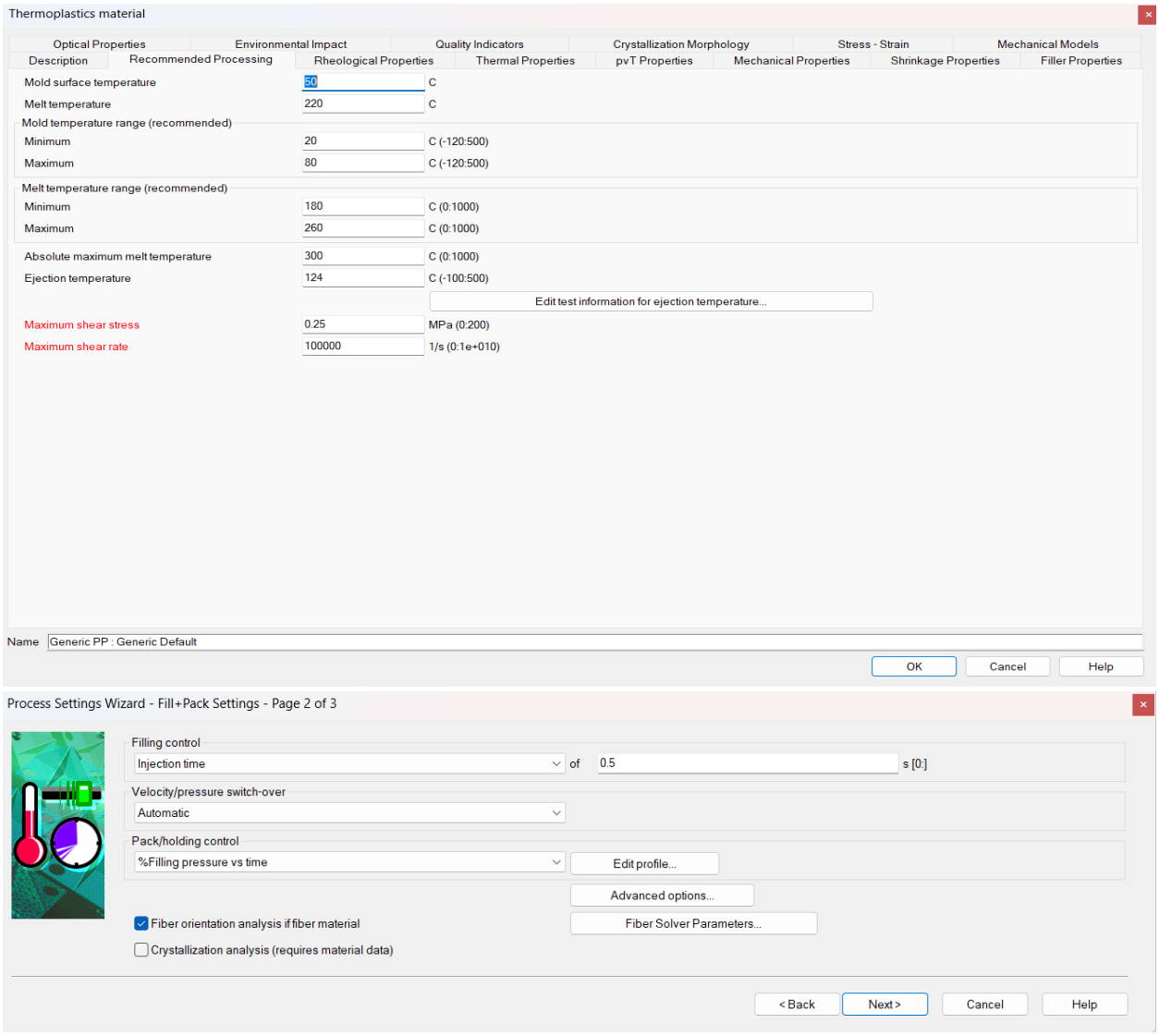
LID

14. Material used and their recommended values



15. Good mesh
16. Changes made



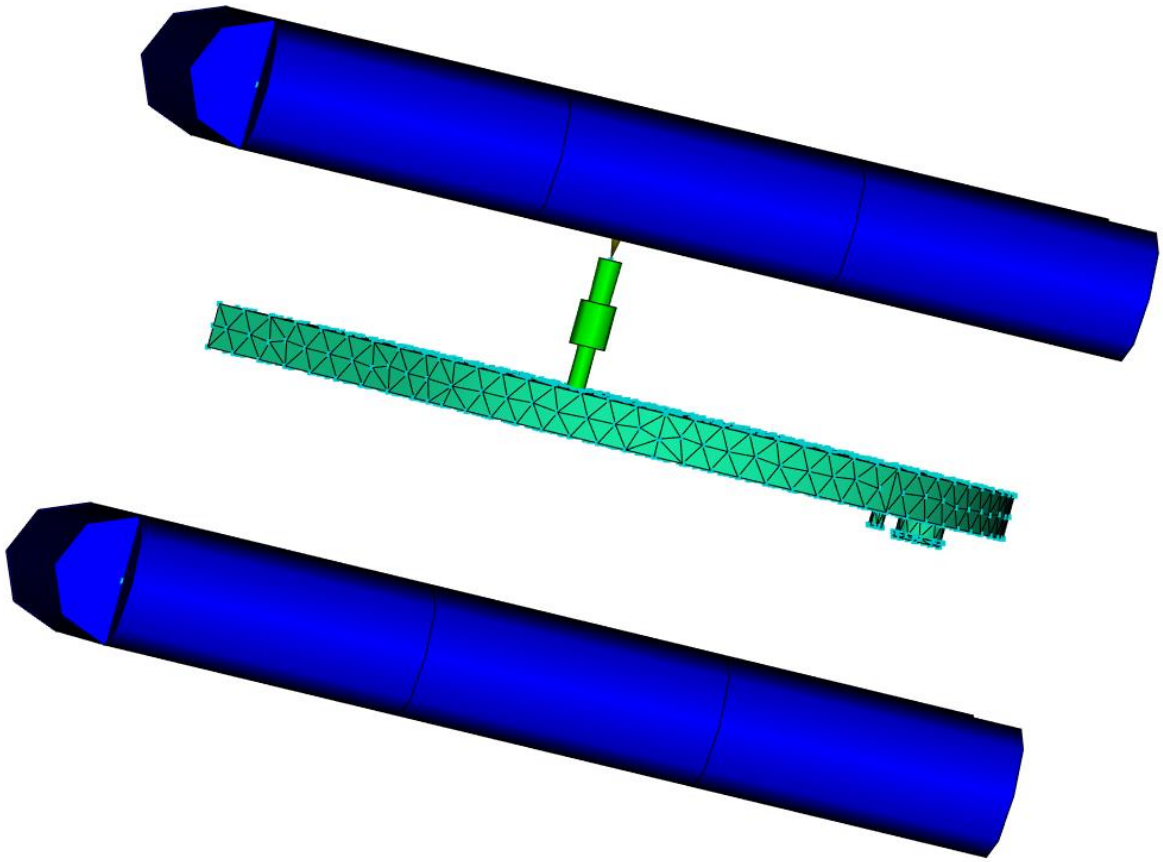


The changes are presented in 1st and 3rd photo, whereas the 2nd photo represents the recommended values.

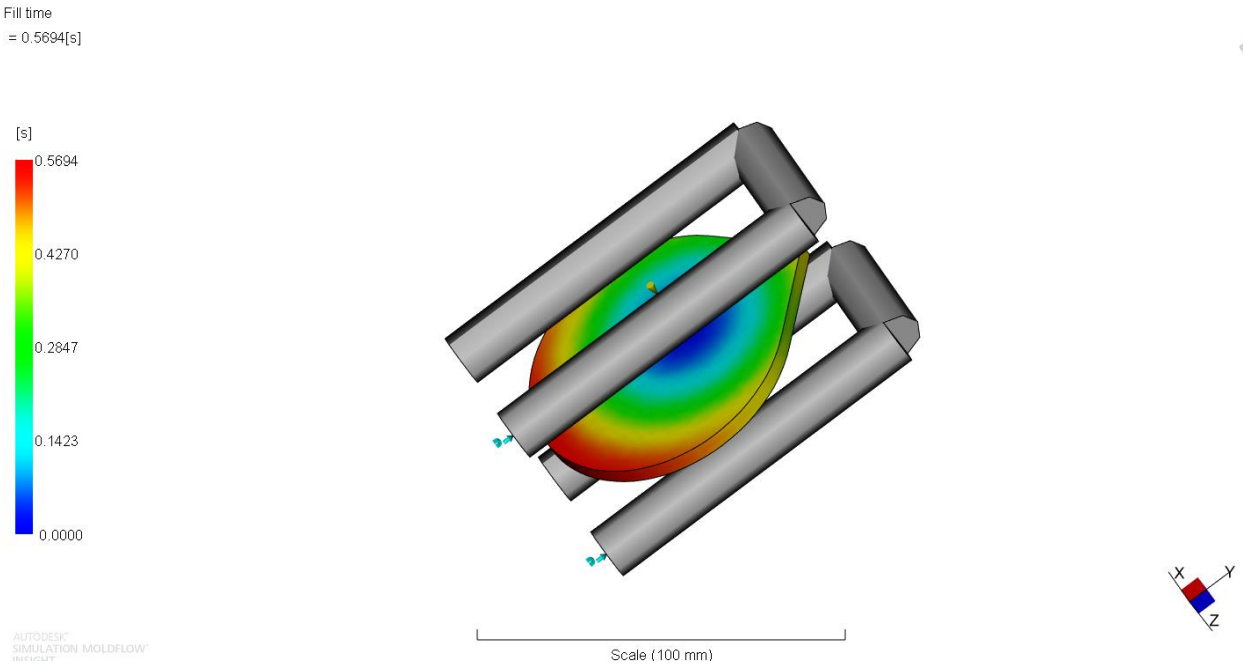
17. Injection gates

    One injection gate is used in this part:

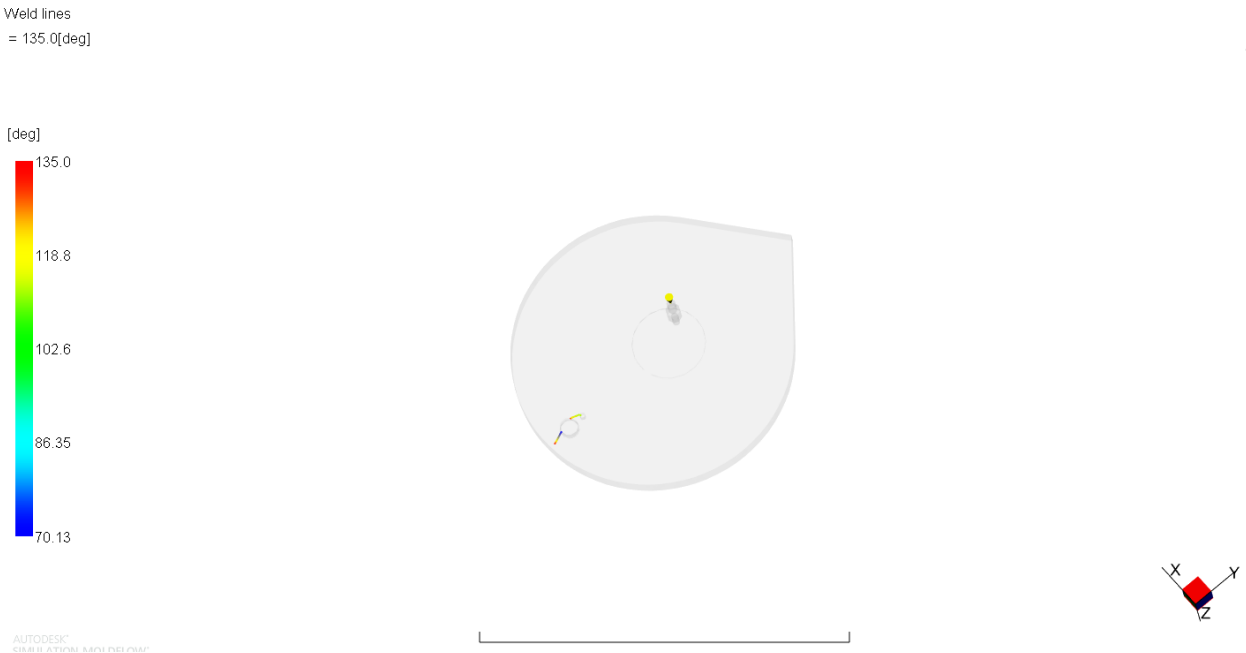
18. Cold runner: because it is cheap



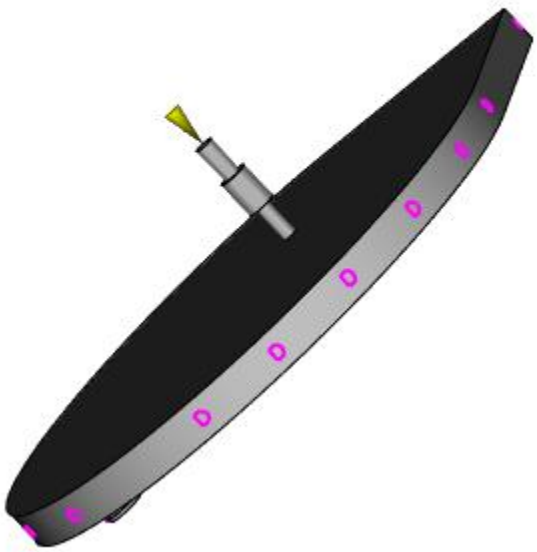
19. Fill time



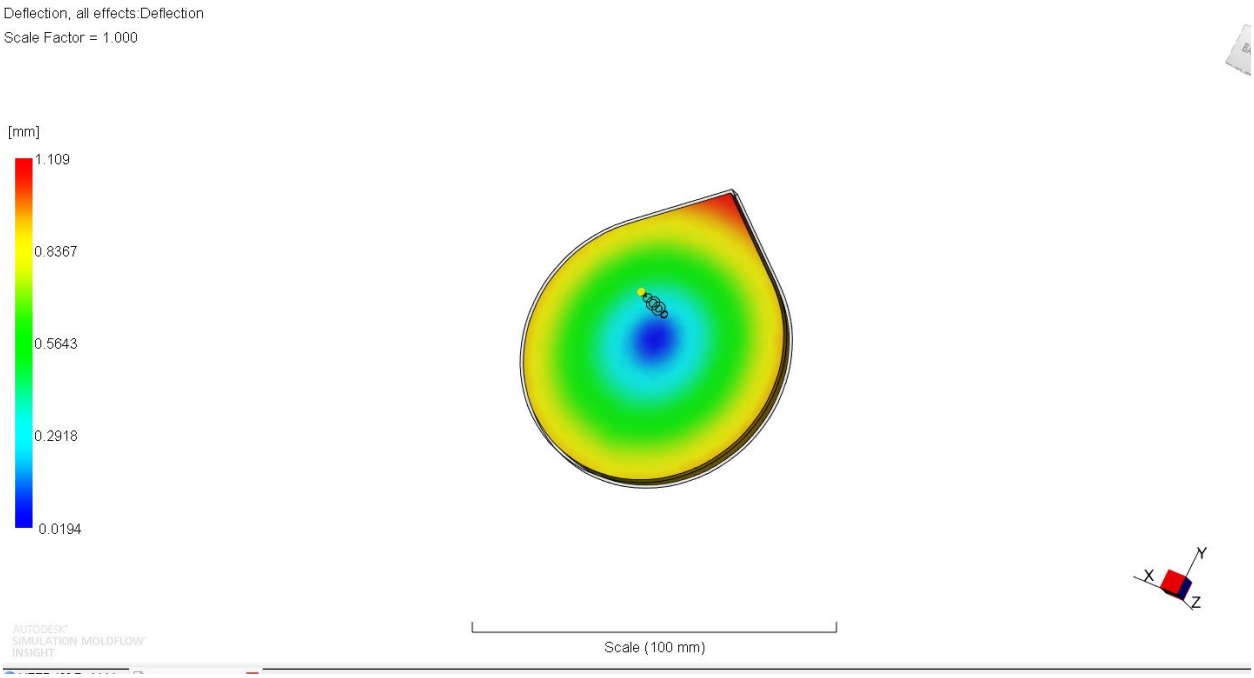
20. Weld lines



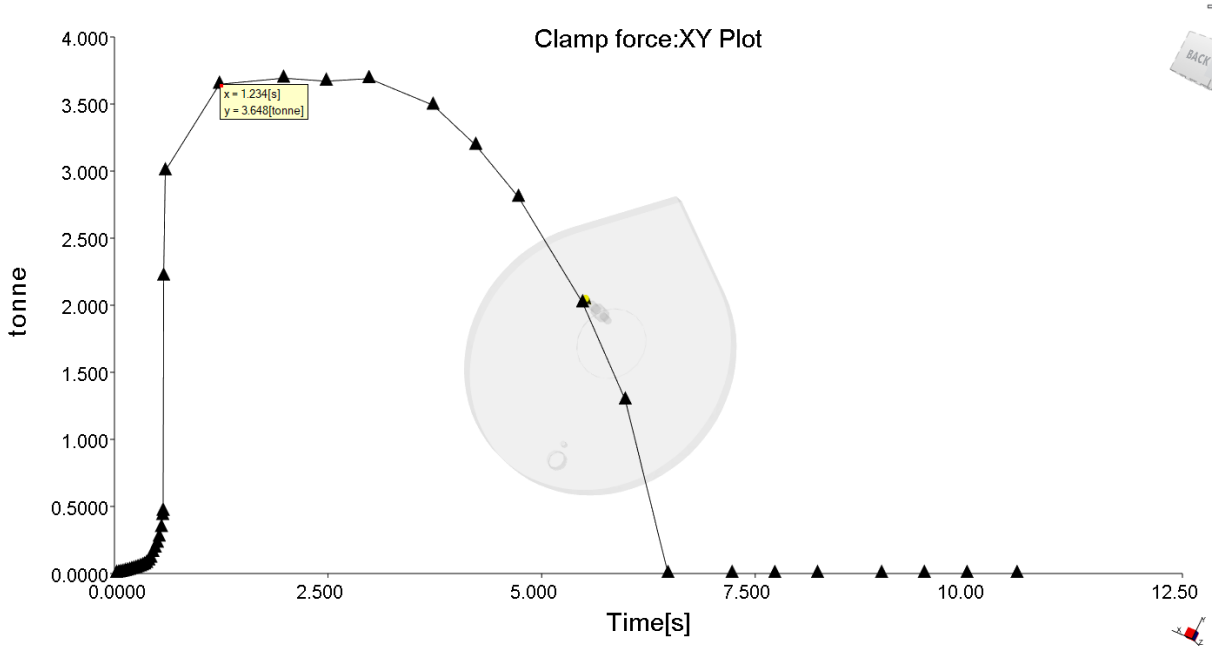
21. Air traps



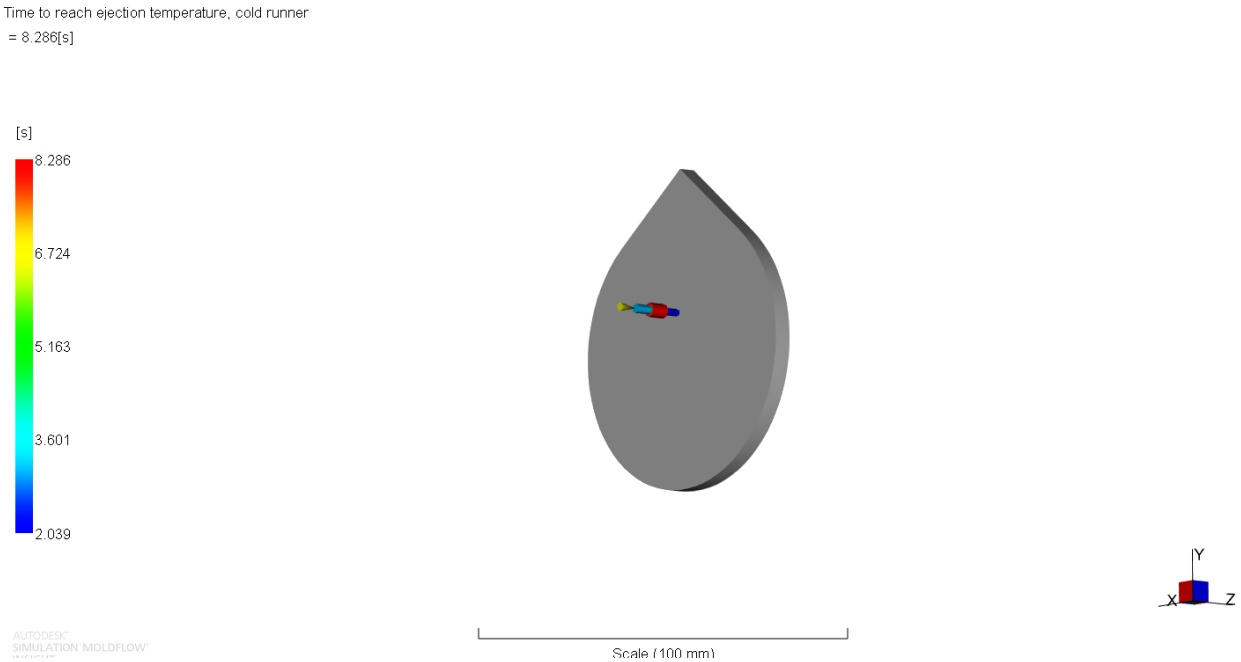
22. Deflection



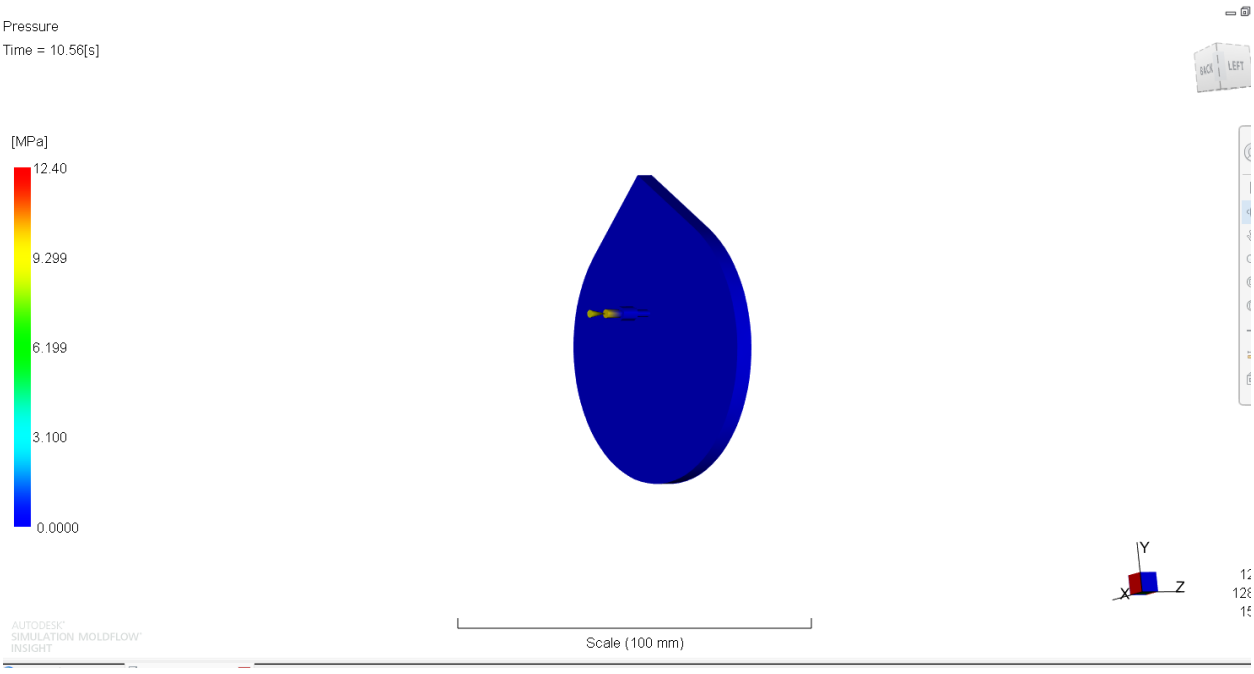
23. Clamp force (can use same machine as the base)



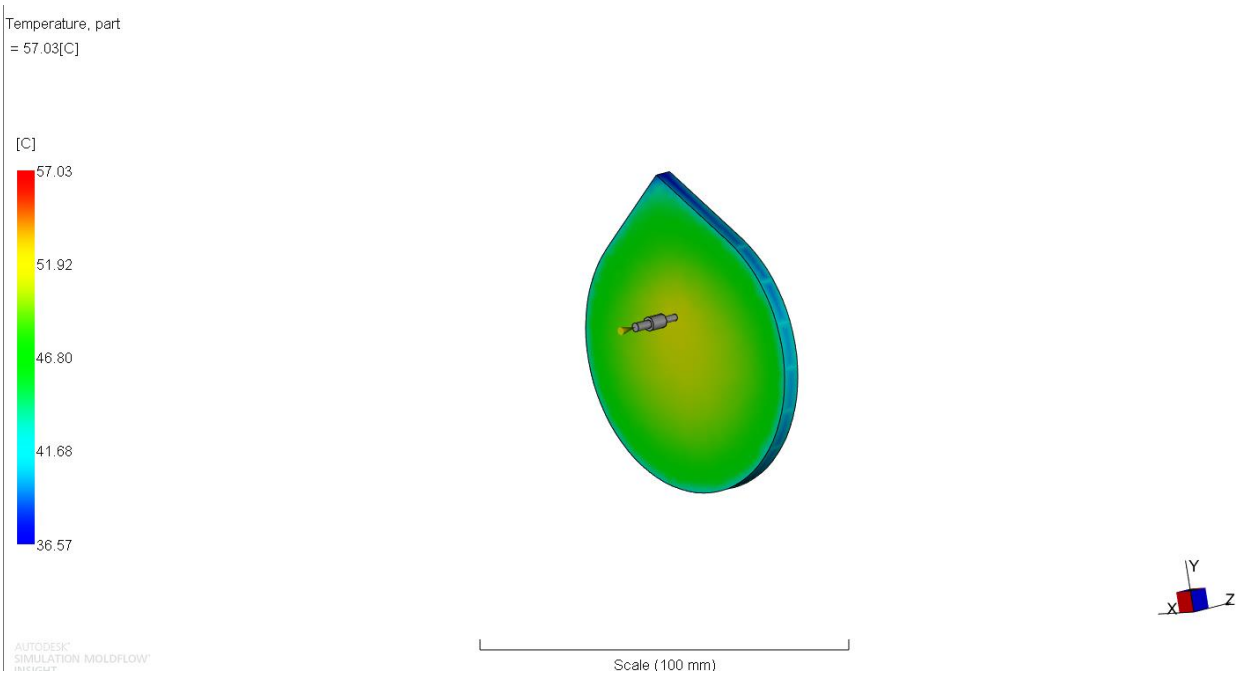
24. Time to reach injection temperature (cool)



25. Pressure



26.Temperature part


Temperature, part
= 57.03[C]
[C]
57.03
51.92
46.80
41.68
36.57
AUTODESK
SIMULATION MOLDFLOW
Y
X
Z
Scale (100 mm)