



Injection Molding Process Qualification Kit (Mold Qualification, OQ/PQ)

Mold qualification plan, data-driven process development worksheets (viscosity, gate seal, pressure drop, cosmetic window), DOE planner, OQ/PQ protocols, setup sheet, mold PM and drying logs.

What's inside

File	What it is / how to use it
01_Injection_Molding_Qualification_Workbook.xlsx	Relative viscosity, gate-seal, pressure-drop and process window worksheets on your data, DOE planner, OQ/PQ capability with Cpk, mold PM and material drying logs.
02_Mold_Qualification_Plan.docx	Plan, protocol and report shell.
03_Universal_Setup_Sheet.docx	Machine-independent setup record.
04_First_Shot_and_Change_Record.docx	Start-up and change log.

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About the author

Built by Matt Norman, US Navy veteran and former SpaceX Falcon 9 quality inspector and QA supervisor. (Not affiliated with or endorsed by SpaceX.) Norman Quality Tools is Veteran-Owned & Operated. Contains no SpaceX, government, or customer proprietary information; all example data is made up.

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Mold Qualification Plan and OQ/PQ Protocol

Injection Molding Process Qualification Kit (Mold Qualification, OQ/PQ) - Document 02 - Rev A (2026-10)

Mold #		Part # / rev	
Press		Material	
Customer		Plan #	

1. Scope and CTQs

[Part, cavities, critical dimensions and cosmetic requirements, customer requirements (e.g., ISO 13485 7.5.6 or IATF 16949 process validation expectations).]

2. Process development (data-driven)

- Relative viscosity study (Viscosity Curve sheet)
- Cavity balance check
- Pressure drop study (Pressure Drop sheet)
- Process / cosmetic window (Process Window sheet)
- Gate seal study (Gate Seal sheet)
- Cooling time study
- DOE on key factors (DOE Planner sheet)

3. OQ

Run at the low and high edges of the established window; measure your sample size per cavity and confirm all CTQs meet spec.

4. PQ

Run at nominal for the number of runs and duration your plan justifies (e.g., 3 runs incl. a restart and material lot change).

5. Acceptance criteria

[Your Ppk/Cpk targets and visual criteria; customer-required values.]

6. Report

Results summary, deviations, approved process window and conclusion

Role	Name	Signature	Date
Process engineer			