CONTROLLED QUALITY CHECKLIST / FLEXURAL MODULUS

01 / Project and material identity

Complete project identification before evaluating material properties. No anonymous family-level data should produce an engineering approval.

Verification item	Result*	Evidence ID / Notes
Project / part number and revision	[ ] P [ ] F [ ] NA [ ] Hold	_____
Functional load, direction and duration	[ ] P [ ] F [ ] NA [ ] Hold	_____
Controlled displacement acceptance limit	[ ] P [ ] F [ ] NA [ ] Hold	_____
Commercial resin grade / supplier	[ ] P [ ] F [ ] NA [ ] Hold	_____
Filler, reinforcement and composition	[ ] P [ ] F [ ] NA [ ] Hold	_____
Lot / batch identity and traceability	[ ] P [ ] F [ ] NA [ ] Hold	_____
Mold-flow / print-build orientation	[ ] P [ ] F [ ] NA [ ] Hold	_____
Test report and material TDS revision	[ ] P [ ] F [ ] NA [ ] Hold	_____
Operating temperature and humidity	[ ] P [ ] F [ ] NA [ ] Hold	_____
Drawing and requirement source approved	[ ] P [ ] F [ ] NA [ ] Hold	_____

* P = Pass against a documented project requirement; F = Fail; NA = Not applicable with a stated reason; Hold = pending evidence.

Project reviewer: _____ Date: _____

CONTROLLED QUALITY CHECKLIST / FLEXURAL MODULUS

02 / Coupon setup and instrument review

Verification item	Result*	Evidence ID / Notes
ASTM D790-25 or ISO 178:2019 edition confirmed	[ ] P [ ] F [ ] NA [ ] Hold	_____
Appropriate material-specific specification reviewed	[ ] P [ ] F [ ] NA [ ] Hold	_____
Applicable specimen type and direction identified	[ ] P [ ] F [ ] NA [ ] Hold	_____
Measured span L and specimen b, d recorded	[ ] P [ ] F [ ] NA [ ] Hold	_____
Loading nose and support radii documented	[ ] P [ ] F [ ] NA [ ] Hold	_____
ASTM A/B or ISO testing speed recorded	[ ] P [ ] F [ ] NA [ ] Hold	_____
Actual executed machine rate documented	[ ] P [ ] F [ ] NA [ ] Hold	_____
Qualified midspan deflection method identified	[ ] P [ ] F [ ] NA [ ] Hold	_____
Machine compliance / correction verified	[ ] P [ ] F [ ] NA [ ] Hold	_____
Calibration and machine trace IDs available	[ ] P [ ] F [ ] NA [ ] Hold	_____
Conditioning temperature, RH and time recorded	[ ] P [ ] F [ ] NA [ ] Hold	_____

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Test laboratory / technician: _____ Report ID: _____

CONTROLLED QUALITY CHECKLIST / FLEXURAL MODULUS

03 / Data, modulus and statistics audit

Verification item	Result*	Evidence ID / Notes
Original force-deflection file present	[ ] P [ ] F [ ] NA [ ] Hold	_____
Each specimen uniquely traceable	[ ] P [ ] F [ ] NA [ ] Hold	_____
No reversed / negative / invalid raw points	[ ] P [ ] F [ ] NA [ ] Hold	_____
Stress and strain formulas / SI units checked	[ ] P [ ] F [ ] NA [ ] Hold	_____
ISO 0.0005 and 0.0025 targets both bracketed	[ ] P [ ] F [ ] NA [ ] Hold	_____
ASTM tangent region independently confirmed	[ ] P [ ] F [ ] NA [ ] Hold	_____
ASTM chord points defined by test plan	[ ] P [ ] F [ ] NA [ ] Hold	_____
Deflection correction trace verified	[ ] P [ ] F [ ] NA [ ] Hold	_____
No mixed modulus definitions pooled	[ ] P [ ] F [ ] NA [ ] Hold	_____
Independent specimen count matches reports	[ ] P [ ] F [ ] NA [ ] Hold	_____
Mean, sample SD and CV independently recalculated	[ ] P [ ] F [ ] NA [ ] Hold	_____

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No raw curve supplied? Mark calculation pending and do not claim a newly completed material test.

CONTROLLED QUALITY CHECKLIST / FLEXURAL MODULUS

04 / Part beam screening and design risks

Verification item	Result*	Evidence ID / Notes
Rectangular uniform section established	[ ] P [ ] F [ ] NA [ ] Hold	_____
Simply supported midspan load model matches	[ ] P [ ] F [ ] NA [ ] Hold	_____
Actual support and contact conditions checked	[ ] P [ ] F [ ] NA [ ] Hold	_____
Linear elastic response at service strain supported	[ ] P [ ] F [ ] NA [ ] Hold	_____
Temperature, load duration and grade matched	[ ] P [ ] F [ ] NA [ ] Hold	_____
EI and deflection independently recalculated	[ ] P [ ] F [ ] NA [ ] Hold	_____
Predicted strain compared with test E interval	[ ] P [ ] F [ ] NA [ ] Hold	_____
Local stress, indentation and notches considered	[ ] P [ ] F [ ] NA [ ] Hold	_____
Creep / fatigue / nonlinear risks assessed	[ ] P [ ] F [ ] NA [ ] Hold	_____
Candidate dimensions and tolerances reviewed	[ ] P [ ] F [ ] NA [ ] Hold	_____
Measurable part-test acceptance method defined	[ ] P [ ] F [ ] NA [ ] Hold	_____

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A calculated deflection below the limit is a design screen only until real part evidence is reviewed.

CONTROLLED QUALITY CHECKLIST / FLEXURAL MODULUS

05 / Actual part evidence and decision

Verification item	Result*	Evidence ID / Notes
Physical part sample and revision verified	[ ] P [ ] F [ ] NA [ ] Hold	_____
Load, direction, restraints and time matched	[ ] P [ ] F [ ] NA [ ] Hold	_____
Ambient conditions recorded	[ ] P [ ] F [ ] NA [ ] Hold	_____
Instrument calibration current	[ ] P [ ] F [ ] NA [ ] Hold	_____
Measured displacement values retained	[ ] P [ ] F [ ] NA [ ] Hold	_____
Measured value compared with controlled limit	[ ] P [ ] F [ ] NA [ ] Hold	_____
Deviations and open issues dispositioned	[ ] P [ ] F [ ] NA [ ] Hold	_____
Source evidence and lab file references attached	[ ] P [ ] F [ ] NA [ ] Hold	_____
Approver authorized under quality procedure	[ ] P [ ] F [ ] NA [ ] Hold	_____
Signed decision and date entered	[ ] P [ ] F [ ] NA [ ] Hold	_____

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Decision: [ ] APPROVE [ ] REJECT [ ] HOLD | Signature/record: _____

CONTROLLED QUALITY CHECKLIST / FLEXURAL MODULUS

06 / Final handoff and document control

The PDFs and workbook are templates. Copies containing project data must be managed in the user organization's document-control system.

Verification item	Result*	Evidence ID / Notes
Engineering Guide revision recorded	[ ] P [ ] F [ ] NA [ ] Hold	_____
Excel workbook revision recorded	[ ] P [ ] F [ ] NA [ ] Hold	_____
Workbook source inputs archived	[ ] P [ ] F [ ] NA [ ] Hold	_____
Calculation methods and exceptions declared	[ ] P [ ] F [ ] NA [ ] Hold	_____
Coupon test originals retained separately	[ ] P [ ] F [ ] NA [ ] Hold	_____
Supplier material and batch documentation saved	[ ] P [ ] F [ ] NA [ ] Hold	_____
Actual-part test records retained separately	[ ] P [ ] F [ ] NA [ ] Hold	_____
All Hold/Fail items resolved by authorized staff	[ ] P [ ] F [ ] NA [ ] Hold	_____
Final disposition communicated to purchasing/NPI	[ ] P [ ] F [ ] NA [ ] Hold	_____
Approved release record controlled	[ ] P [ ] F [ ] NA [ ] Hold	_____

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Prepared by: _____ Reviewed by: _____ Date: _____