

INSEAKU Wetsuit Fit, Leak and Sample Approval Checklist

Printable companion to the article: [How to Prevent Seam Leaks and Fit Failures Before Bulk Production](#)

Document purpose	Use this record to define project-specific fit, mobility, leak-diagnosis, material-test, revision and approval evidence before bulk release.
Important limitation	This is a procurement and factory-control template, not a laboratory certificate and not a universal test standard.
Live fit policy	INSEAKU does not normally live-fit every sample. When live fit confirmation is required, use the fixed fit model or other agreed body profile.
Professional testing	Professional material and durability testing is generally assigned to a qualified third-party laboratory.
Release rule	Bulk production begins only after written sample approval, confirmed specifications, the production order and required deposit/commercial approvals.

How to use this checklist

Step	Required control
1	Freeze intended use, target user, body measurements, size chart, construction and sample stage before testing.
2	Record garment measurements before interpreting fit. Never use visual appearance alone as dimensional evidence.
3	When live fit is required, identify the fixed model, body profile, selected garment size and exact movements performed.
4	Separate a true seam leak from opening flush, zipper ingress and general material wetting before corrective action.
5	Define method, setup, condition, duration, sample size, frequency, tolerance and acceptance criteria in the approved customer quality plan.
6	Keep every failure on hold until the cause, revision, replacement sample or section, retest and written reapproval are recorded.

1. Project definition and bulk-release gate

Complete the left table before testing. Complete every applicable gate on the right before production release.

Project field	Approved value	Document / version	Owner / date
Customer			
PO / project ID			
Style / model			
Sample stage			
Intended use			
Target user / body profile			
Body measurement reference			
Garment size chart			
Material specification			
Seam / zipper construction			
Approved test plan			
Customer quality plan			
Current sample ID			
Planned bulk order			

1A. Bulk-release gate

Every applicable gate must show the required evidence and a dated approver before written release.

Approval gate	Required evidence	Status	Approver / date
Inputs frozen	Current specifications and references	Pending	
Measurements	Actual values within tolerances	Pending	
Fit / mobility	Required observations accepted	Pending	
Leak diagnosis	Checks passed; source classified	Pending	
Material / durability	Required factory or third-party evidence	Pending	
Corrections closed	All failures corrected and retested	Pending	
Pre-production sample	Approved sample/version identified	Pending	
Specifications confirmed	Current controlled documents	Pending	
Production order / deposit	Commercial release conditions met	Pending	
Bulk-production release	Dated written authorization	Pending	
Overall release status	HOLD / PENDING / READY FOR WRITTEN RELEASE	Final approver / date	

2. Garment measurement record

Use the approved point-of-measure method, garment condition and project-specific plus/minus tolerance. The result is not valid until the method and units are clear.

No.	Sample ID	Size	Point of measure	Method / condition	Target	- Tol.	+ Tol.	Actual	Deviation	Result	Revision / action	Inspector / date
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												

Continue additional measurement rows in the editable Excel workbook when required.

3. Fixed-model fit and mobility review

Use only when live fit confirmation is required. Identify the fixed model or agreed body profile; record the location, movement and observed effect instead of only 'good' or 'bad'.

Fit-model field		Approved / actual value					Reference			Date	
Model ID / name											
Sex / age group											
Body measurements											
Wetsuit size											
Intended activity											
Conditioning / test setting											

No.	Movement / posture	Body area / fit point	Expected condition	Observation / actual effect	Pressure / restriction	Gap / flush risk	Panel / knee alignment	Entry / zipper / removal	Result	Action / revision	Reviewer / date
1	Static posture								Pending		
2	Shoulder rotation								Pending		
3	Forward reach								Pending		
4	Overhead reach								Pending		
5	Elbow flexion								Pending		
6	Squat								Pending		
7	Knee flexion								Pending		
8	Forward bend								Pending		
9	Torso rotation								Pending		
10	Entry								Pending		
11	Zipper operation								Pending		
12	Removal								Pending		
13	Other project-specific movement								Pending		

4. Localized seam-leak test and water-entry diagnosis

Select only an approved project method. State the area, fixture, pressure or water condition, duration and acceptance criterion. Do not label opening flush or zipper ingress as a seam failure without diagnosis.

No.	Sample / section	Area / seam	Method	Setup / fixture	Pressure / water condition	Duration	Acceptance criterion	Observed location / evidence	Source classification	Result	Failure / cause	Corrective action	Tester / date
1		Neck / opening								Pending			
2		Shoulder / underarm seam								Pending			
3		Arm seam								Pending			
4		Torso / side seam								Pending			
5		Crotch / junction								Pending			
6		Knee panel seam								Pending			
7		Ankle / wrist opening								Pending			
8		Zipper teeth / slider								Pending			
9		Zipper-to-panel interface								Pending			
10		Taped / sealed area								Pending			
11		Other project-defined area								Pending			
Common diagnostic risks			Glue gaps; incomplete compression; skipped/broken stitches; unintended needle holes; tape lift, offset or bubbles; liquid-seal cracking; zipper-interface construction or installation errors.										

5. Water-entry source classification

A wet interior does not identify the source by itself. Document the observation and evidence before assigning corrective action.

Classification	Evidence definition	Typical next review
Seam leakage	Water or air passes through a seam or seam-treatment defect at a reproducible location.	Construction, glue, stitch, tape or liquid-seal review
Opening flush	Water enters through neck, wrist or ankle openings because of fit, movement, pressure or opening geometry.	Fit, pattern, opening dimension and movement review
Zipper ingress	Water enters through zipper teeth, slider, seal or zipper-to-panel interface.	Component selection, installation and interface review
Material wetting	The outer or lining surface becomes wet without proof of through-seam leakage.	Material specification and test-method review
Undetermined	Evidence is insufficient or different mechanisms cannot yet be separated.	Hold, redesign the test and repeat

5A. Observed water-entry decision record

Record the first observed location, whether the result can be reproduced and the evidence supporting the source classification.

Observation ID	Sample / size	Movement / test condition	First observed location	Reproduced?	Classification	Evidence file / photo	Owner	Decision / next action
1								
2								
3								
4								
5								
6								
7								

6. Material and durability test record

Factory checks may be used where agreed. Assign professional material or durability tests to a qualified third-party laboratory and link every report to the correct material, sample and product requirement.

No.	Test / risk	Sample / material	Direction / area	Method / laboratory	Condition / cycles	Acceptance criterion	Report / evidence	Result	Failure / root cause	Revision / corrective action	Retest / approval	Owner / date
1	Stretch recovery							Pending				
2	Tensile / elongation							Pending				
3	Tear resistance							Pending				
4	Water penetration resistance							Pending				
5	Water absorption							Pending				
6	Bond / lamination durability							Pending				
7	Seam / construction durability							Pending				
8	Zipper / component durability							Pending				
9	Ageing / environmental exposure							Pending				
10	Other intended-use test							Pending				

Reference boundary	ISO 37, ISO 1420, ISO 1421, ISO 4674-1 and ISO 17581 can inform relevant material-test conversations. A material coupon result is not whole-garment proof. Use only the exact standard, edition and method agreed by the buyer, supplier and laboratory.
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7. Failure, revision, retest and reapproval log

Do not release a failed sample or section by verbal agreement. Connect the issue to its cause, controlled revision, replacement sample or section, retest evidence and dated customer decision.

Revision ID	Date	Sample / section	Issue / failure	Root cause	Changed pattern / material / process / spec	Affected documents	Replacement sample / section	Retest evidence	Result	Customer decision	Approval date	Owner
R01									Pending			
R02									Pending			
R03									Pending			
R04									Pending			
R05									Pending			
R06									Pending			
R07									Pending			
R08									Pending			
R09									Pending			
R10									Pending			

Continue additional revision rows in the editable Excel workbook when required.

8. Sample-stage and pre-production approval

INSEAKU may use development samples, fit samples, revised samples, sealed samples and a pre-production sample as required by the project. Identify exactly which version each approval covers.

Stage	Sample / version	Purpose	Measurements accepted	Fit / mobility accepted	Leak diagnosis accepted	Tests / reports accepted	Buyer decision	Date
Development sample							Pending	
Fit sample							Pending	
Revised sample							Pending	
Sealed sample							Pending	
Pre-production sample							Pending	
Other project stage							Pending	

9. Final bulk-production release

Release only after the identified sample version, controlled documents, closed revisions and commercial conditions are confirmed.

Required item	Document / evidence	Status	Approver / date	Notes
Written approval identifies the sealed and/or pre-production sample		Pending		
Current specifications, measurements, material and construction are confirmed		Pending		
Required revisions and failed tests are closed and reapproved		Pending		
Production order and required deposit/commercial conditions are complete		Pending		
Bulk-production release is issued in writing		Pending		

Final decision	HOLD / APPROVE WITH CLOSED CONDITIONS / RELEASE FOR BULK	Authorized by		Date	
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Project-specific note: the customer quality plan controls the applicable sample size, test frequency, tolerances, methods and acceptance criteria. This template does not replace a signed specification, purchase order, laboratory report or written approval.