

Carbon Frame QC Checklist

A practical buyer-side review sheet for sample approval, supplier documentation, assembly fit, packaging, and pre-shipment checks.

This checklist helps bike shops, dealers, distributors, and private-label teams review carbon frame quality control before sample approval or bulk orders. It is not a substitute for supplier documentation, product testing, or a written purchase agreement.

1. Supplier and Project Scope

- Supplier name, website, and contact information are consistent.
- Product model, size range, and application are clearly identified.
- Project type is confirmed: OEM, ODM, open mold, modified open mold, or private mold.
- Target market and intended use are documented.
- Required accessories are listed: fork, seatpost, headset, axle, hanger, spacers, and small parts.

2. Design and Geometry Review

- Geometry chart is provided for each size.
- Tire clearance is stated and confirmed against intended use.
- Brake mount type is confirmed.
- Cable routing method is confirmed.
- Bottom bracket type is confirmed.
- Seatpost and clamp design are confirmed.
- Headset specification is confirmed.
- Maximum rotor size, if relevant, is confirmed.

3. Material and Process Documentation

Ask the supplier to provide factual documentation. Do not rely on unsupported marketing claims.

- Material description is provided.
- Layup or construction explanation is available at a buyer-appropriate level.
- Molding process is described.
- Curing or finishing process is described.
- Any claimed test standard or certification is backed by verifiable files.
- Any material brand or grade claim is supported by supplier documentation.

4. Visual Inspection

Inspect sample frames under consistent lighting before approval.

- Paint or finish is consistent across visible surfaces.
- No obvious cracks, dents, bubbles, voids, or delamination signs.

- Decal and logo placement matches artwork approval.
- Mounting holes are clean and aligned.
- Dropouts and brake mounts are cleanly finished.
- Cable ports and grommets fit properly.
- Fork and frame finish match if supplied together.
- Serial number or tracking label is present if agreed.

5. Fit and Assembly Checks

- Fork fits correctly with headset parts.
- Seatpost inserts smoothly and holds properly.
- Bottom bracket interface is checked before assembly.
- Rear derailleur hanger fits correctly.
- Axles thread smoothly.
- Brake caliper alignment is checked.
- Wheel fit and tire clearance are checked.
- Cable routing can be completed without obstruction.

6. Dimensional Checks

Item	Expected	Actual	Pass / Review
Head tube length			
Top tube effective			
Reach			
Stack			
Chainstay length			
Bottom bracket drop			
Seat tube angle			
Head tube angle			
Rear spacing			
Tire clearance			

7. Test and Compliance Review

- Supplier identifies which test standard or internal test method was used.
- Test report file is provided when claimed.
- Report model name or sample description matches the quoted product.
- Report date and issuing party are visible.
- Buyer understands whether the report applies to the exact model, related platform, or sample configuration.
- Any UCI, SGS, EN, ISO, or similar claim is verified before use in buyer marketing.

8. Packaging and Shipment Inspection

- Frame protection points are documented.
- Small parts are packed and labeled.
- Carton size and gross weight are confirmed by supplier.
- Buyer branding or neutral packaging is confirmed.
- Dropout, fork, and paint protection are adequate.
- Pre-shipment photos or inspection records are requested.

9. Sample Approval Decision

Decision Item	Pass / Review / Reject	Notes
Visual finish		
Assembly fit		
Geometry match		
Documentation		
Packaging		
Commercial readiness		

Buyer Note

For first orders, approve a sample before expanding SKUs. If a claim matters for your market, retail listing, or customer warranty language, verify it before using it in your own marketing.