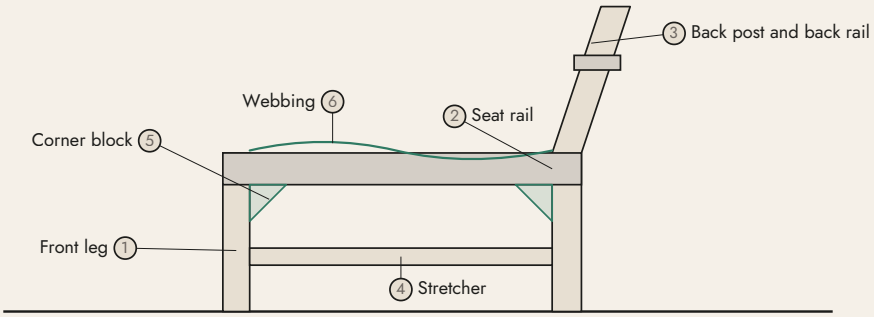
Upholstered *frame construction*: timber, joints and what a test covers

Parts of an upholstered frame, the joints compared, and what a strength test report does and does not show.

AT A GLANCE

Ref	Part	Job	What to look for
1	Front leg	Carries the front of the seat and meets the seat rail.	Solid kiln-dried hardwood, grain running with the leg.
2	Seat rail	Ties the legs together and carries the webbing or suspension.	Joints at both ends; no splits at the ends.
3	Back post and back rail	Carries the back load; the post often continues the rear leg.	Grain running along the rake, not across it; the back joint is a stress point.
4	Stretcher	Stiffens the frame against racking.	Fixed with a joint, not only a screw.
5	Corner block	Reinforces a corner of the seat frame.	Glued and screwed; fitted at every corner of a seat frame.
6	Webbing or suspension rails	Support the seat springs or cushion.	Fixings into the rail, not into the end grain.

Parts as shown in the drawing. Workshop practice, not a standard: the partner upholsterer states what is used.



Schematic side view: not to scale. Upholstery, springs and cushions are left off.

Parts of an upholstered chair frame in side view. Original schematic by Make Bespoke Studio, not to scale.

SPECIFICATION WORDING

FRAME TIMBER

Frame to be [solid kiln-dried [beech / ash / oak] / laminated hardwood] with the moisture content at manufacture stated by the workshop as [ ] per cent and the method recorded. Sheet material only where shown on the shop drawing. Grain to run along legs, rails and back posts.

JOINTS AND CORNERS

Legs to rails to be jointed by [mortise and tenon / dowels / loose tenons], glued, with [number] per joint. Each corner of the seat frame to be reinforced with a glued and screwed corner block. Screw-only joints are not accepted for structural connections. Stretchers to be jointed to legs.

EVIDENCE

The supplier is to provide a test report to [BS EN 16139 level [L1 / L2], edition [ ]] for a sample of the same construction, and a frame statement listing timber, moisture content, joints and reinforcement. Any change to the frame after sign-off is to be notified and approved.

TERMS USED

Kiln-dried

Timber dried in a controlled kiln to a stated moisture content before it is cut and used.

Corner block

A block of wood glued and screwed into the inside of a frame corner to stiffen it.

Racking

The sideways distortion of a rectangular frame towards a parallelogram under a push along one side.

Webbing

Strong woven strips stretched across the seat rail to support springs or foam.

Mortise and tenon

A joint in which a tongue cut on one part fits a slot cut in the other.

Moisture content

The weight of water in wood as a percentage of its dry weight.

STANDARDS AND SOURCES

- BS EN 16139:2025: Furniture. Strength, durability and safety. Requirements for non-domestic seating. Read through the test reports that cite it; the standard itself was not read. Current at the time of the library notes (BSI, 31 Aug 2025).
- BS EN 1728:2012: Domestic furniture. Seating. Test methods for strength and durability; clause numbers seen in test reports. Not read. Listed current in the library notes.
- BS EN 1022:2023: Furniture. Seating. Determination of stability; cited in a 2025 test report. Not read.

Full guide: https://makebespoke.com/trade/technical/upholstered-frame-construction-and-joints. Make Bespoke Studio coordinates manufacture through its partner workshops. Figures are guidance only and your specification governs; some may be superseded, so contact the studio to verify.