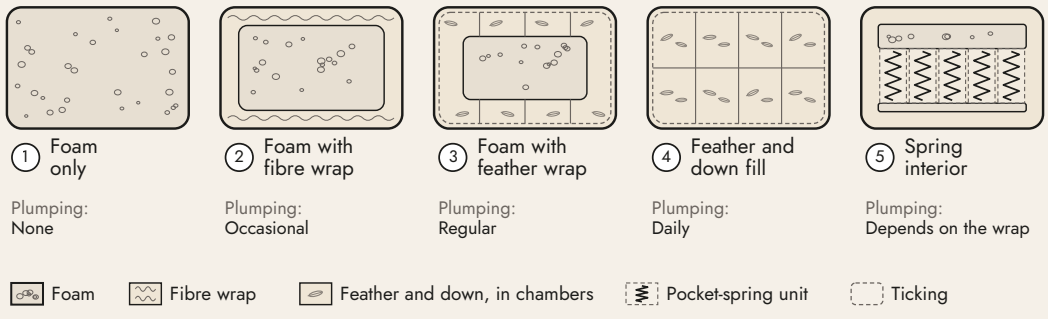
Seat cushion *constructions* compared: foam, wrap, feather and spring

Five seat cushion builds compared: foam, foam with fibre wrap, foam with feather wrap, feather and down fill and spring interior, with the fire route for each and wording to specify them.

AT A GLANCE

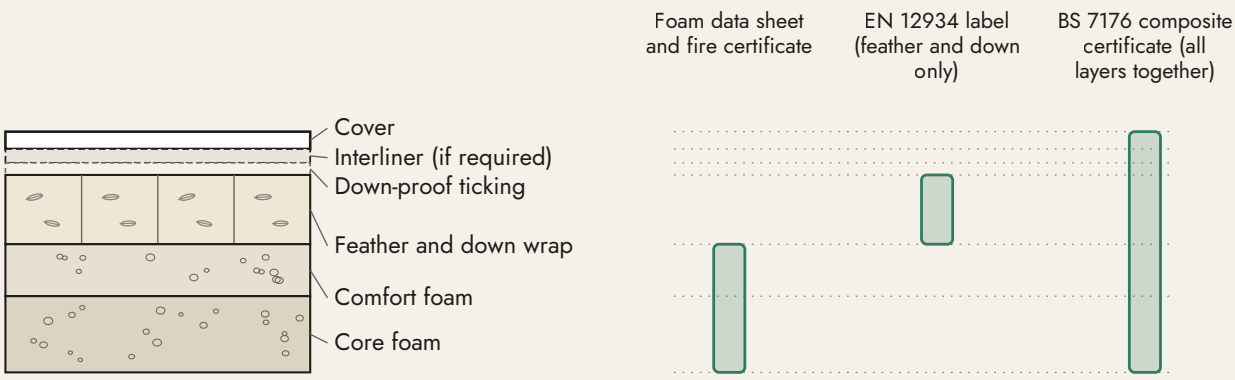
Build	Layers, top to bottom	First sit	Shape and care	Fire route
1 Foam only	Cover, interliner if needed, foam in one or more grades	Crisp and even	Holds its line, with no fill to move. Life follows the foam grade.	One filling, so one composite to certify.
2 Foam with fibre wrap	Cover, interliner, polyester fibre wrap, foam	Softer edge and first touch, still tailored	Holds well; the wrap settles over time. Lift and turn now and then.	The wrap is part of the filling: certify the build with it.
3 Foam with feather wrap	Cover, ticking, feather and down wrap in chambers, foam core	Soft and relaxed, slightly crushed	The foam restores the shape; the wrap needs regular plumping.	A distinctly different filling type: test the actual build.
4 Feather and down fill	Cover, ticking with chambers, feather and down, no core	Softest; sinks deeply, recovers slowly	Least stable: flattens without daily dressing.	As 3, for the whole cushion. Check the hazard category first.
5 Spring interior	Cover, wrap, foam, pocket-spring unit, foam pad	Resilient; the surface comes from the layers above	Depends on the wrap and on a firm base beneath.	Springs sit inside the composite: certify the build.

A qualitative comparison from trade practice and our published pages, to be confirmed by the partner upholsterer for the builds they make. Foam density and hardness are on the foam sheet. No fire pass level is stated here: the Responsible Person sets the hazard category.



Five seat cushion builds in section, schematic and not to scale. Original drawing by Make Bespoke Studio.

WHAT EACH PIECE OF EVIDENCE COVERS



Schematic: layers not to scale. Seat, back and arms are tested as separate composites where their fillings differ.

Foam data sheet, EN 12934 label and BS 7176 composite certificate each cover different layers of a feather-wrapped foam cushion. Schematic.

SPECIFICATION WORDING

BUILD 1: FOAM ONLY

Seat cushion: [foam only]. Foam [grade] [ ] mm thick, density [ ] kg/m3 (ISO 845), hardness [ ] N at [40] % indentation (ISO 2439, method [ ]). Cover [ ], interliner [as the fire certificate requires]. Foam data sheet, foam ignition certificate and a composite certificate for the build as supplied to be provided with the shop drawings.

BUILD 2: FOAM WITH FIBRE WRAP

Seat cushion: foam core [grade] [ ] mm with [polyester fibre] wrap [ ] mm thick on the top and sides, cover [ ], interliner [as the fire certificate requires]. Wrap and interliner to be inside the tested composite. Composite certificate for the build as supplied.

BUILD 3: FOAM WITH FEATHER WRAP

Seat cushion: foam core [grade] [ ] mm with a feather and down wrap [ ] mm thick in chambered down-proof ticking, composition [ ] % feather, [ ] % down by weight, declared to [EN 12934:2025]. Composite certificate for the build as supplied, not a foam-only certificate. Plumping instructions to be supplied.

BUILD 4: FEATHER AND DOWN FILL

Seat cushion: feather and down fill, no core, [ ] % feather, [ ] % down by weight declared to [EN 12934:2025], [ ] g per cushion, in down-proof ticking with [ ] chambers. Composite certificate for the build as supplied. Plumping and turning routine to be supplied.

BUILD 5: SPRING INTERIOR

Seat cushion: spring interior. Pocket-spring unit [ ] mm high between foam layers [ ] mm above and [ ] mm below, wrapped in [fibre / feather and down], cover [ ]. Supplier to state the spring unit and its base support. Composite certificate for the build as supplied.

TERMS USED

Fibre wrap
A layer of polyester wadding or other fibre wrapped around a foam core to soften the edges and make the cushion look fuller. Wraps need to be inside the tested fire composite.

Pocket spring
A coil sewn into its own fabric pocket so each spring moves independently. Used in seat cushions, mattresses and some sofa decks.

Down-proof ticking
A tightly woven inner case that stops feathers or down quills poking through the cover or leaking out. It sits between the filling and the outer cover.

Upholstery composite
The exact combination of cover, interliner and filling that was tested together. A fire certificate only applies to that combination, so changing the foam or cover can make it invalid.

STANDARDS AND SOURCES

- FIRA and the British Furniture Confederation, Fire safety of furniture and furnishings in the contract and non-domestic sectors (2010, updated 2011): composites, filling annexes, re-testing; the guide does not name feather or fibre wraps.
- BS EN 12934:2025: feather and down composition labelling; contents list and foreword read in a free preview, clauses not read.
- BS 7176 and BS 5852: as described in the FIRA guide; not read. Confirm against the current editions.
- Make Bespoke Studio: upholstery fills and technical sheets: the fill families and care notes this sheet compares.

Full guide: https://makebespoke.com/trade/technical/seat-cushion-constructions-compared. 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.