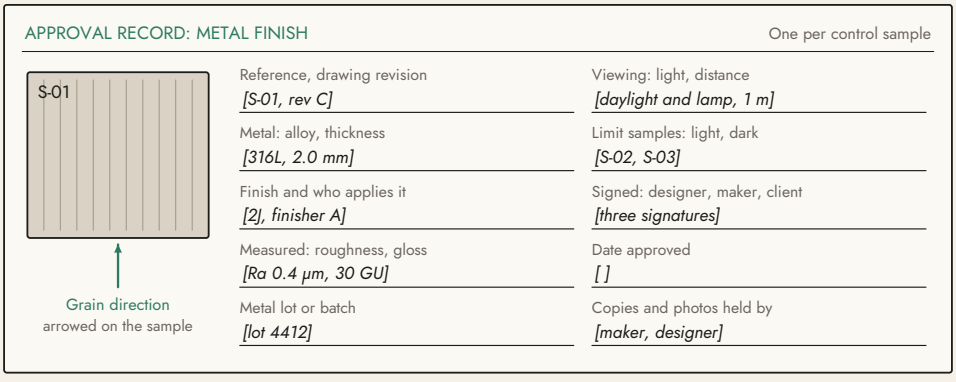
Metal finish *sample approval* and batch variation

Metal finishes never repeat exactly. Sign a control sample and two limit samples, write the viewing conditions down, and keep one record per sample.

AT A GLANCE

Finish	What makes pieces or batches differ	Put on the record	Basis
Stainless, mill and brushed (2B, 2J, 2K)	Finisher's abrasive, belt wear and speed. Suppliers do not match. Roughness of 2B changes with thickness.	EN 10088-2 code, Ra with a limit, grain direction on the drawing, one finisher and one thickness per visible run.	ASSDA mill forms page (2023); BSSA; IMOA.
Coloured stainless (electrochemical, PVD)	Slight colour variation. Viewing angle and curving change the colour; the base finish shows through.	Samples showing the colour range, base finish named, approval under the building's lighting.	Euro Inox Vol. 16 (2011), sections 2, 2.3, 9.
Powder coat (RAL, metallic, textured)	Colour is held to a range, not a point. Film thickness, and for metallics the line settings and orientation, change the effect.	Colour system and product, gloss in GU at 60 degrees with a tolerance, limit samples for metallics.	PCI comparison (March 2021); see our RAL sheet.
Anodised aluminium	Alloy, temper, mill lot, coating thickness and process. Sheet and extrusion never match.	Range samples, one lot and shipment where possible, panels sorted by tone on site.	An aluminium finisher's guides; AAMA 611 named, not read.
Patinated or lacquered brass and bronze	Chemistry, surface preparation and weather on the day. Lacquer is hard to apply thin and even.	A control sample by the same process, limit samples, sealed or not, lacquer coats and thickness.	A metals fabricator's copper page; CCI Notes 9/3 (2007).
Welds and ground joints	A weld rougher than its surroundings, heat tint, halos on anodised aluminium.	Finish run through the weld. Approve a welded sample, not only a flat one.	IMOA (2003); ASSDA FAQ 6; the finisher's guide.

Causes the sources name. None gives a typical amount of variation or promises anything about a batch.



An approval record for one control sample. Examples in square brackets are placeholders. Original layout by Make Bespoke Studio.

SPECIFICATION WORDING

CONTROL SAMPLE AND LIMIT SAMPLES

Finish to [element] shall match the control sample [S-01], approved and signed by [designer], [maker] and [client] on [date]. The accepted range lies between the limit samples [S-02, lighter] and [S-03, darker]. A piece outside the limit samples is not accepted. Samples were made by [finisher] by the production process, in [alloy and thickness]. A matching set is held by [maker] and [designer].

MEASURED VALUES

Roughness [Ra 0.5] micrometres maximum, measured [in the direction stated on the record]. Gloss [30] GU [plus or minus 5] at 60 degrees to [BS EN ISO 2813, edition to be confirmed]. [Colour: instrument, light source, observer and colour-difference formula named by the finisher; limit proposed by the finisher and agreed before production.] Measured values for the control sample are recorded on approval record [S-01]. Where a property cannot be measured, the limit samples govern.

VIEWING CONDITIONS

Samples and production are judged [vertical / flat] as fitted, from [distance] m, at [angle], under [daylight] and [lamp type of the room], at [light level / as agreed]. The conditions are written on the approval record.

BATCH CONTROL AND CHANGE

All pieces of [element] seen together are made from one lot of [alloy, thickness], finished in one run by [finisher] and delivered in one shipment [where practicable]. Pieces are marked with lot and run, and fitted in order of tone with the grain as drawn. A change of metal lot, supplier, thickness, process or finisher after approval needs a new sample and written approval before use. The first production piece is presented beside the control sample before the remaining [number] are finished.

TERMS USED

Control sample

The one sample that the client or designer has approved and the maker keeps as the benchmark against which production is judged. It should be labelled, dated and signed.

Limit sample

A sample that marks the edge of the accepted range: the lightest, darkest, coarsest or finest piece that will be accepted. Also called a range or border sample. It is signed with the control sample.

Gloss unit (GU)

A measured value of how shiny a surface is, usually at 60 degrees. Trade words like matt, satin and gloss are not fixed bands, so give a GU target and tolerance.

Delta E (colour difference)

A single number for how far apart two colours are, as read by an instrument. It needs the light source, observer and formula named, and a limit from a standard or an agreed sample.

STANDARDS AND SOURCES

- IMOA: Which Stainless Steel Should Be Specified for Exterior Applications? (ABC 00/03, 2003; via BSSA)
- Euro Inox: Colouring Stainless Steel, Vol. 16, 2011 (via BSSA): sections 2, 2.3 and 9.
- Euro Inox: Guide to Stainless Steel Finishes (via BSSA)
- ASSDA: Mill forms (2023)
- ASSDA: Technical FAQ 6, Preventing Coastal Corrosion
- PCI: Architectural Specification Comparison (March 2021)
- Canadian Conservation Institute, CCI Notes 9/3 (2007)
- An aluminium finisher's technical guides on colour variation and range samples: US practice.
- BS EN ISO 2813, ISO/CIE 11664, BS EN 10088-2, AAMA 611: named, not read; confirm current editions.

Full guide: https://makebespoke.com/trade/technical/metal-finish-sample-approval-and-batch-variation. 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.