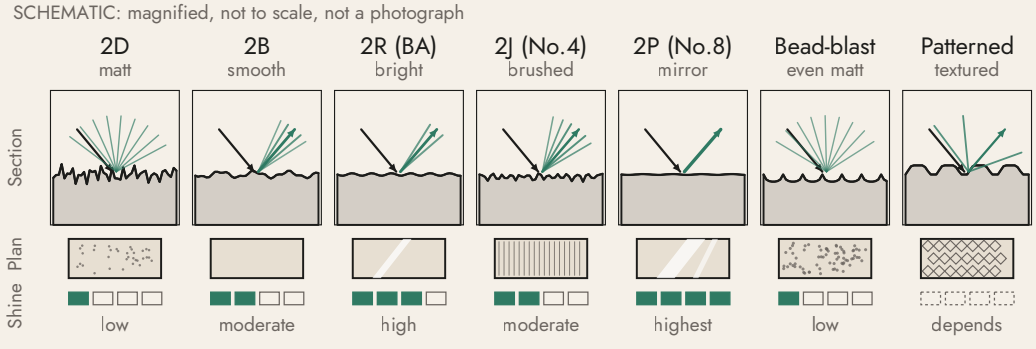
Stainless steel *finish codes* explained

Specify a finish by code or approved sample, a measured roughness and a grain direction.

AT A GLANCE

Finish and code	What it is	Look	Where it suits in hospitality (studio guidance)
2D (US: 2D)	Cold rolled, annealed, pickled; a mill finish.	Matt, non-reflective, rougher than 2B.	Rare. A base for painting or further finishing; back of house.
2B (US: 2B)	Cold rolled, annealed, pickled, skin passed; the common mill finish.	Smooth, moderately reflective.	Kitchens, back of house, hidden panels; a base for further finishing.
2R (US: BA)	Cold rolled, bright annealed in a controlled atmosphere; a mill finish.	Bright, near mirror, slightly milky; not polished.	Reflective trims and panels where polish lines would be unwelcome.
2J, 2K (US: No.4, No.240)	2J: brushed or dull polished with abrasive belts. 2K: satin polished, finer.	Fine directional grain, soft sheen; 2K is finer and softer.	The workhorse: lift and wall panels, bar fronts, door plates, fittings.
Hairline (no EN code)	Very fine continuous lines from non-metallic pads.	Smoother, more reflective than No.4.	Lift doors, long wall panels, columns; scratches can be dressed on site.
Non-directional (no EN code)	Very fine random scratch pattern, by brush or pad.	Soft; less reflective than the linear finishes.	Bar tops, counters, handrails; it hides light scratching.
2P (US: No.8, mirror)	Polished with finer abrasives, then buffed.	Most reflective sheet finish; fine lines show close up.	Statement columns and reveals out of reach; shows marks readily.
Bead-blasted (no EN code)	Glass beads fired at the surface.	Even non-directional matt; low reflectivity.	Quiet, uniform panels and fittings; no grain to match.
Patterned (EN code M)	Pattern rolled into one side at the mill, or ground in.	Linen, leather, diamond; the pattern has a direction.	Lift interiors, cladding, bar fronts; it breaks up light.
Coloured (PVD, others)	Colour added to a finished surface, most often by PVD.	Brass, bronze, black; follows the surface beneath.	Warm metals without brass upkeep; see the PVD factsheet (TL-MET-04).

Codes from trade summaries of EN 10088-2; US names per IMOA. Check against BS EN 10088-2:2024 before quoting.



Black arrow: light in. Green: where it goes. Shine is a qualitative ranking, not a measurement.

How seven finishes treat light. Original schematic by Make Bespoke Studio, not to scale, not a photograph.

READING THE CODES

- First digit: 1 hot rolled, 2 cold rolled. Letter: B, D, R mill finishes; G, J, K, P mechanical finishes added afterwards; M a pattern rolled in.
- Hairline, non-directional and bead-blasted finishes have no EN code: fix them by description, measured Ra and an approved sample.

SPECIFICATION WORDING

BRUSHED OR SATIN STAINLESS PANEL

Stainless steel sheet, grade [1.4301 (304)], [2.0] mm. Finish [2J] to EN 10088-2 (edition [to be confirmed]), equivalent to US No.4. Typical Ra [0.2 to 0.6] micrometres across the grain on approved reference sample [ref. __]. Grain [vertical], identical on all panels and running through weld lines. Panels for one visible run from the same supplier and, where possible, the same batch. To match the approved sample under project lighting at [1] m.

MIRROR POLISHED STAINLESS

Stainless steel sheet, grade [1.4401 (316)], [2.0] mm. Finish [2P] to EN 10088-2 (edition [to be confirmed]), equivalent to US No.8, polished then buffed. Polishing compounds to be stated by the fabricator and free of contaminants such as iron oxide. Welds dressed and polished to match, no rougher than the surrounding finish. Approved sample [ref. __]; no visible polishing lines or distortion at [1] m.

BEAD-BLASTED OR PATTERNED STAINLESS

Stainless steel sheet, grade [1.4301 (304)], [1.5] mm. Finish [fine glass-bead blasted / pattern name and reference], non-directional matt [or pattern direction __]. Not defined by an EN 10088-2 code: defined by approved reference sample [ref. __] and its measured Ra [__] micrometres. Bead size and process to be stated by the fabricator.

TERMS USED

2B finish

The common smooth mill finish for cold-rolled stainless sheet: cold rolled, annealed, pickled, skin passed. Moderately reflective.

BA (bright annealed) finish

A bright, near-mirror mill finish (EN code 2R) made by annealing in a controlled atmosphere. No polishing lines, but not a polished mirror.

No.4 finish

The US name for a fine directional brushed or dull-polished finish, close to EN code 2J. Brushed alone does not define it: give a roughness and a grain direction.

Surface roughness (Ra)

A measured average roughness in micrometres; lower is smoother. IMOA treats Ra 0.5 or less as smooth, and notes the same finish can differ between suppliers.

STANDARDS AND SOURCES

- BS EN 10088-2:2024: BSI, published 30 September 2024. Text not read; codes taken from summaries of earlier editions.
- British Stainless Steel Association: Surface finish: codes G, J, K, P; blasting; avoid specifying by brushed or satin.
- Euro Inox, Guide to Stainless Steel Finishes (BSSA-hosted): use Ra and EN 10088-2.
- IMOA: Which stainless steel should be specified for exterior applications?: Ra 0.5 or less; vertical grain.
- IMOA Stainless Solutions (August 2017): mechanically applied finishes: ASTM to EN cross-reference; Ra.
- ASSDA: Mill forms: 1D, 2D, 2B, BA; why Ra varies.
- Make Bespoke Studio journal: Metal finishes: how the finish families look and feel.

Full guide: https://makebespoke.com/trade/technical/stainless-finish-codes. 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.