Decorative *plating*: chrome, nickel, gold

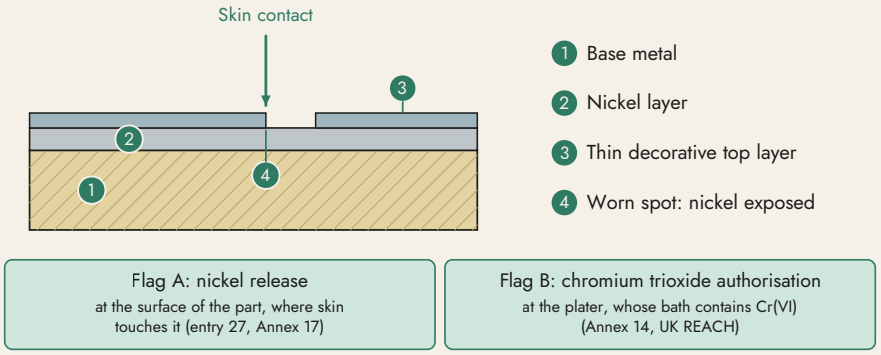
What decorative plating is made of, what the nickel release rule says, and the questions to ask a partner about the build-up and the plater.

Compliance guidance. Regulatory text is from the HSE UK REACH list of restrictions (entry 27, nickel) and the HSE authorisation list and a Defra decision (chromium trioxide), read on 7 November 2026. The spreadsheet's version log ends in 2022, so check the current text on legislation.gov.uk and with a test house or your adviser. This is not legal advice; confirm with the relevant authority. The studio coordinates manufacture through partner workshops and does not certify finishes or test for nickel release.

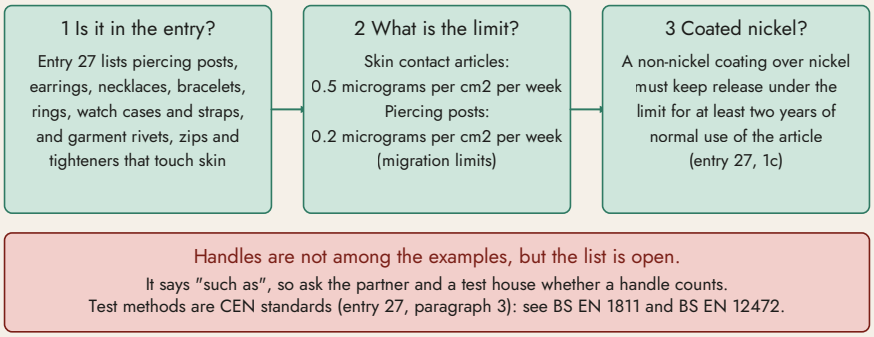
AT A GLANCE

Finish	Look	Wear and repair (reported)	Regulatory flag
Bright chromium	Cool, bright, mirror-like	A film a fraction of a micrometre thick over nickel (reported); hard, but a scratch can reach the nickel	Plater's chromium trioxide bath (Annex 14); nickel beneath
Nickel, polished or satin	Warmer than chromium	Plated layer; dulls and can be re-polished, or stripped and replated	Entry 27 if it touches skin
Black nickel	Dark grey to black	A thin coloured deposit; shows wear at edges (reported)	Nickel compound; entry 27 if it touches skin
Gold	Yellow gold look, set by the alloy and thickness	A thin layer wears through to what is beneath; thickness decides life	Often over nickel (reported); entry 27 if it touches skin
Rose gold	Pinker, copper-rich gold look	As gold; colour names vary between suppliers	As gold
PVD alternative	Many colours, thin vacuum film	Very thin, hard; not plating	See the PVD sheet

Wear and repair behaviour is general finisher knowledge and is not a sourced test. The regulatory flags are from the HSE list (entry 27) and the HSE authorisation list, read 7 Nov 2026.



Section through a plated part: base metal, nickel layer and a thin decorative top layer, a worn spot that exposes the nickel, and the two regulatory flags. Schematic, layers drawn far thicker than real. Original drawing by Make Bespoke Studio.



A reading path for entry 27 of the UK REACH list of restrictions, as printed in the HSE list. Original drawing by Make Bespoke Studio.

SPECIFICATION WORDING

PLATED FINISH

[Part ref] in [base metal], plated [finish name, e.g. nickel / chromium / gold] with build-up [underlayers and top layer in order]; minimum thickness of each layer [ ] micrometres, shown on the plater's certificate; colour to approved sample [ref]. Plating route: partner to name the plater and state whether a chromium trioxide bath is used; evidence of the plater's authorisation where one is required. Repair and care instructions to be supplied; no abrasive polish.

NICKEL RELEASE

Parts in direct and prolonged contact with skin [list refs, e.g. handles, rails]: partner to provide a nickel release test report on the finished article to [BS EN 1811 with wear conditioning to BS EN 12472 where relevant] showing release below [the UK REACH entry 27 limit], or a written reason why entry 27 does not apply. Test house and date to be named. Evidence before manufacture is approved.

TERMS USED

Nickel release
The rate at which nickel leaves an article in contact with the skin, measured in micrograms per square centimetre per week.

Annex 14
The UK REACH Authorisation List: substances that may be used only under an authorisation, including chromium trioxide.

Cr(VI)
Hexavalent chromium, the form of chromium in chromium trioxide to which its carcinogenic and mutagenic properties are attributed.

Underlayer
A plated layer beneath the visible top layer, often nickel, that carries corrosion resistance and surface quality.

Polish-through
Wear that removes the thin top layer so the layer beneath shows or is exposed.

STANDARDS AND SOURCES

- UK REACH list of restrictions, entry 27 (Nickel): HSE spreadsheet read 7 Nov 2026; version log ends 2022; confirm the current text.
- UK REACH Authorisation List (Annex 14), entry 16 Chromium trioxide; Defra decision AFA055-01 (29 Jul 2025): Read 7 Nov 2026.
- BS EN 1811:2023, BS EN 12472:2020, BS EN ISO 1456: Nickel release, wear simulation and plating thickness. Editions per secondary listings; none read.

Full guide: https://makebespoke.com/trade/technical/decorative-plating-chrome-nickel-gold. 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.