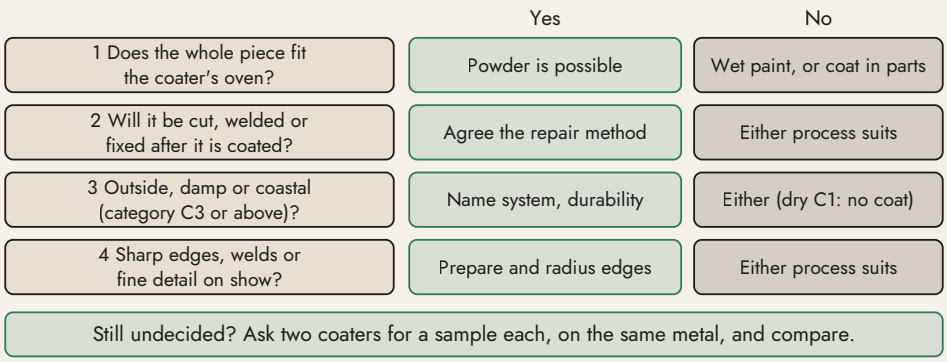
Powder coat vs *wet paint* on metalwork

Four questions that decide powder coat or wet paint for a metal piece, what the sources say about each, and wording for a specification. General guidance: confirm every figure with the partner coater.

AT A GLANCE

	Powder coat	Wet paint	Basis
Where it is applied	In the coater's shop: powder is sprayed on, then cured in an oven.	Mostly in the shop; finish coats can be brushed, rolled or sprayed on site.	steelconstruction.info: spraying is most common in the shop; brushing and rolling more common on site.
Size limit	The coater's oven and pre-treatment line.	The spray booth and handling, and on site the access.	No figure found for either. Ask each coater for the largest part size and weight.
Cure	Oven cure; Qualicoat UK & Ireland describes a 160 to 210 °C oven for aluminium.	Air-drying and chemically curing types are both listed (air-drying alkyds; two-pack epoxies and urethanes).	Powder temperature as read for TL-MET-21, not re-read. Paint types: steelconstruction.info.
Typical film	Steel systems of 80, 140 or 200 µm in one, two or three coats (Qualisteelcoat).	Building examples of 140 to 300 µm over two or three coats (our sum of the listed coats).	Qualisteelcoat 5.0.1 Annex 3; steelconstruction.info example systems.
Standards route	Qualisteelcoat for steel, Qualicoat for aluminium; BS EN 13438 and 15773 for galvanised steel.	BS EN ISO 12944-5:2019 systems, chosen by corrosivity category and durability.	Qualisteelcoat 5.0.1 notes that ISO 12944 does not cover powder, so it borrows the categories.
Durability claim	Classes C2 to C5 marked 'recommended' per system; the scheme says this is not a warranty.	Low, medium, high, very high (up to 7, 7 to 15, 15 to 25, over 25 years) to first major maintenance.	ISO 12944-1:2017 bands as printed by steelconstruction.info; neither is a guarantee.
Repair on site	Through the coating supplier; rubbing or polishing can damage metallic and matt films.	Recoatable finishes are listed for site application; touch-up by brush or spray.	Qualicoat care sheet (TIS 1) as read for TL-MET-21; steelconstruction.info system tables.
Colour	Limited to the powder maker's approved range; neither scheme says 'any RAL'.	Not evidenced; one source says micaceous iron oxide has a limited colour range.	Ask both coaters to match your reference and approve a sample.
Edges and detail	Film thins on sharp edges: radius to 0.5 mm and remove burrs (Qualicoat UK & Ireland).	ISO 12944-3 covers design for coating; its edge rules were not read.	Draw the edge you want and say who prepares it.
Hollow sections, welded assemblies, VOCs	Not evidenced.	Not evidenced.	Put each question to the partner coater in writing.

Corrosivity categories C1 to C5 and durability bands are those of ISO 12944; see our sheet on corrosion categories. 'Not evidenced' means we found no source for the statement, not that it is untrue. Figures for powder are from the sheet on powder coating metalwork; the paint figures are examples for structural steelwork in buildings, not decorative metalwork.



Four questions that lean towards powder, wet paint or either. Original drawing by Make Bespoke Studio; a prompt for the conversation with the coater, not a rule.

SPECIFICATION WORDING

PAINT SYSTEM (STEEL)

Coating system to BS EN ISO 12944-5 for corrosivity category [C3], durability [High]. Preparation: blast clean to [Sa 2½ to BS EN ISO 8501-1]. Coats: [zinc phosphate epoxy primer 80 µm; epoxy MIO 100 µm; recoatable polyurethane finish 60 µm]; nominal dry film thickness [240] µm. Colour [RAL [ ]], gloss [ ] GU at 60 degrees. Partner to state the system, the paint maker's data sheet and the applicator in writing before pricing.

POWDER SYSTEM (STEEL)

Powder coating system [Qualisteelcoat 5.0.1, Annex 3] for category [C3]: [pre-treatment, primer and top coat in µm]; total [140] µm. Coater to state its scheme licence and the approved system in writing. See the sheet on powder coating metalwork for the full wording.

ACCEPTANCE AND REPAIR

Dry film thickness to be measured on the plan in [ISO 19840]: mean not below nominal, no reading below 80 per cent of it. Control sample [S-01] on [the same metal and route] signed [date]. Repair of damage after coating to be by [the coater / the paint maker's recoat procedure], agreed in writing before work starts, with a trial on [the sample].

TERMS USED

Two-pack (2K) paint

A paint supplied as two parts, a base and a hardener, mixed just before use. Two-pack epoxies and polyurethanes (urethanes) are common in steel coating systems.

Micaceous iron oxide (MIO)

A flaky iron oxide pigment used in an intermediate paint coat, usually epoxy, to build film thickness and slow the passage of moisture. Its colour range is limited, so a separate finish coat gives the colour.

Dry film thickness (DFT)

The thickness of a coating once it has dried or cured, in micrometres (µm). Wet film thickness times the percentage of volume solids gives the expected dry film.

STANDARDS AND SOURCES

- steelconstruction.info (SCI and BCSA): standard corrosion protection systems for buildings; protective coating specification; paint coatings: cites BS EN ISO 12944-2:2017 and -5:2019; read 7 Nov 2026.
- BS EN ISO 12944-5:2019 (paint systems); ISO 12944-1:2017 (durability bands): named from the sources above; texts not read. Confirm the current edition.
- Qualisteelcoat Technical Specifications 5.0.1 (valid 1 January 2026): as read for TL-MET-21.

Full guide: https://makebespoke.com/trade/technical/powder-coat-vs-wet-paint-on-metalwork. 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.