Metoba Metalloberflächenbearbeitung GmbH
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Metoba

Data sheet finishing / electro plating
Additional information about our processing and terms and conditions

Our offer took into account relevant aspects and, if necessary, pointed out any deviations to your request. In addition, please observe the following instructions:

1. General information

- ✓ Packing: Unless otherwise agreed, the delivery packaging will also be used for delivery. Exceptions can be small containers. Packaging or containers are not checked or cleaned by Metoba before use.
- ✓ Delivered packaging units must be clearly labelled with the indication of the customer, product name, weight and delivery note number.
- ✓ Euro pallets in exchange; for grid boxes, racks and pallets, an empty box/pallet must be provided.
- ✓ Pallet weight: Max. 1 000 kg
- ✓ For the raw parts supplied for processing, only lubricants, stamp greases or cutting/stamping oils may be used, which can be removed without residue in aqueous alkaline standard degreasing process.
- ✓ The raw material delivered for refining must only have minimal oiling and must be metallically bare.
- ✓ The following ingredients are known to cause significant coating problems:
  Salts of alkali metals and alkaline earth metals, e.g. barium, sodium, lithium, etc.
  Any resulting warranty claims are excluded.
  In addition, the warranty is excluded on the basis of the following criteria if:
  —siliconous oils have been used;
  —High-pressure additives have been used in the stamping oils or other wetting-disrupting substances in the delivered parts;
  —the delivered parts have been treated with self-volatile oils that cannot be removed by commercially available pre-treatment processes or oxide layers are present which cannot be removed by standard pre-treatment processes.
- ✓ If by the use of the aforementioned lubricants, stamp greases or cutting/punching oils on the part of the customer electrolytes are contaminated or the treatment of the waste water is made more difficult, Metoba is entitled to claim damages from the customer.
- ✓ The components to be finished must not have magnetism.
- ✓ Due to the process, it is possible that several delivery lots can be combined into one batch.
- ✓ Measurement protocols are not created for each coil or measuring point, but instead one test protocol per packaging lot (pallet, grid box, etc.) is usually created.
- ✓ Layer thicknesses are applied without statistical certainty.
- ✓ Electroplated surfaces always reflect the texture of the base material. Information on roughness cannot therefore be guaranteed or checked.
- ✓ Silver passivations contains thiol compounds and are always applied on a complete surface.
- ✓ Residual dirt analyses are not performed by Metoba.
- ✓ Uncoated areas or e.g. blank copper surfaces tend to form oxides. With selective coating, traces of applied metal may be possible in other/uncoated areas.

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- ✓ Changes in the index of the drawings or changes to the material used or the coating specifications shall be notified separately in writing to Metoba and shall be deemed accepted only after written confirmation by Metoba.
- ✓ If, in addition to the technical requirements on the surface, optical requirements for finishing are to be observed, these Metoba must already be communicated in writing and recognizable with the request.
- ✓ Parts from different batches may differ in color.
- ✓ Surfaces with tin finishing can in principle tend to form whiskers, which can be reduced by the use of a sufficient nickel barrier layer as a diffusion barrier.
- ✓ Please note when nickel plating in the barrel or frame/rack process that the nickel surfaces from a layer thickness of 3 µm or more can only be limited bending and flared resistant.
- ✓ The delivery condition of non-acid-resistant stainless steel (all non-RSH steels) must be such that brief activation of the surface is sufficient for applying an adhesive coating. If additional pickling times are necessary, there is a risk of damage to the surface. In the event of damage, our warranty is limited to the value of the finishing.

2. Strip/Coil finishing

2.1. Condition of delivery and delivery

- ✓ Maximum ring/coil weight: 500 kg
- ✓ Pallet size: Max. 800x1200 mm or 1000x1000 mm, stacking height: Max. 1 300 mm
- ✓ Round pallets: Diameter max. 1 200 mm
- ✓ Minimum delivery quantity: 500 m, the delivery quantities for brush, spot or strip coatings must be adjusted individually.
- ✓ Delivered liner paper is reused in an environmentally friendly manner. If new paper is to be used, we ask for information before placing the order.
- ✓ At least one empty coil and 2 rolls of interlayer paper must be provided on delivery.
- ✓ The raw material must have no swirl, no torsion and only a minimum ridge when delivered.

2.2. Punching grid /coils

- ✓ Core drillings of coils: 20 mm, all other core drilling diameters must be reported in writing before placing the order.
- ✓ Minimum internal diameter: 200 mm
- ✓ Maximum outer diameter: 1 200 mm
- ✓ Maximum coil width: 125 mm
- ✓ The coil weight must be suitable for the coil body.
- ✓ Unwinding from pallet is possible, the winding is usually vertical and in the same position.
- ✓ We ask you to provide coil lists containing coil number and quantity/coil.
- ✓ Belt interruptions must be reported when the raw material is delivered. Standard: loose, not spliced.
- ✓ Delivery and dispatch only on stable coils (no cardboard or constrictions).

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- ✓ The winding direction does not correspond to the delivery condition. It is wrapped in the tape principle. Special requirements for the winding direction must be agreed before the order is placed.
- ✓ On winding drawings, the burr and round side must be indicated for both the delivery and delivery conditions.
- ✓ Before awarding the order, we ask for coordination of the run-off zones. These can be up to 4 mm.
- ✓ Brushing processes are always carried out over the full-surfacearea.

2.3. Full strips

- ✓ Ring inner diameter: 300-600 mm
- ✓ Winding only vertically and in the same layer.
- ✓ Maximum outer diameter: 1400 mm
- ✓ If necessary, sufficient cardboard inner rings must be provided, otherwise the winding is carried out without core.

3. Barrel finishing

- ✓ During the bulk material processing, damage, bending, growth or deformation can occur. Extent and type of damage can only be determined by processing a sample close to series production.
- ✓ The geometries of the articles selected for the design have to prevent glueing, plugging or sticking together or hooking as far as possible.
- ✓ As components can hook into each other due to geometry or adhere to each other (adhesion), a sample processing close to series production is always recommended. The minimum volume for this is dependent on components and must be coordinated with Metoba in advance.
- ✓ Please note that the surface finishing usually increases the volume delivered.
- ✓ Bushings and drawing components shall have a rinsing/flushing hole of at least 0.2 mm.
- ✓ Delivery containers may not exceed the volume of 25 litres without prior agreement.

4. Rack finishing

- ✓ Please note that the contacting allows clamping/miscellations to remain visible.
- ✓ If no contact point has been specified in the tender phase, this is defined by Metoba.
- ✓ Due to geometry, uncoated areas can occur due to remaining air bubbles on or in the components during a rack finishing.

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5. Tests at Metoba

- ✓ If test samples are to be attached to the goods, we ask for an information in advance. Length, labelling and packaging must be coordinated.
- ✓ If tests of fittings or threads are required, this must be agreed before the order is placed. Gauges must always be provided.
- ✓ If agreed, the solderability of the finished parts will be tested according to the standard confirmed by Metoba. If this solderability test remains without complaint, the delivery shall be deemed to be free of defects under the aspect of solderability.
- ✓ Due to the production of galvanic processing, quantities are caused by retained samples, test parts, etc. Therefore, a return of the exact delivery quantity is not possible.
- ✓ Layer thickness tolerances listed in quotations are adhered to and checked at defined measuring points. Outside the measuring points, these may differ. If no measurement points have been agreed upon when the quotation was prepared, these will be determined by Metoba. Punching edges are not considered here.

6. Product marking for strip/coil finishing

- ✓ The packaging is done in standard with Metoba adhesive tape.
- ✓ Metoba uses sequential numbers for traceability of the production batch. Unless otherwise agreed, it will be fixed to the delivery packaging or on the coil label.
- ✓ Special labelling, production of bar codes or QR codes or the continuation of coil lists must be agreed before the order is placed. Metoba labels each coil/ring as follows:

Coil label

Metoba

Customer:
Article: KD Item no.:
KD Charge No:
Drawing no.:
Batch No: Interruptions
Delivery note no.:
Metoba Order no.:
Quantity:
Plant no.: Date: Personnel no.:
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If you have any questions about the instructions or the processing methods, please do not hesitate to contact us.

Sincerely,

Your Metoba team