

Instruction

Review: 02

No.

Title

BARSP 13-01 Delivery guidelines for surface quality of supplied parts

Date: 27-02-2007



0. Introduction

This Process Instruction (PI) describes the surface quality guidelines in respect of metal parts supplied to GOTEC.

GOTEC GmbH carries out pre-curing processes of metal, aluminium or plastic vibration damping parts for automotive industry.

The quality of the rubber-metal connection determines the life-span and the properties of the final product.

The quality of this connection is conditional on the surface of each metal part.

Any remains of oil that have not be removed in the GOTEC cleaning process are likely to reduce the adherence between rubber and metal.

The chemical effect of the cleaning process may be impaired by unwanted agents.

These are our reasons for asking each supplier to ensure 100% compliance with the following surface quality guidelines.

General:

This process instruction is supplementary to the current framework agreement!

This process instruction has been agreed with each supplier under a separate agreement.

Nazwa pliku	: BARSP 13-01 Richtlinie Oberflaechenbeschaffenheit ENG		
Sporządził	: M. C. Santos	z dnia:	23.01.2002
Sprawdził	: J. Gorschlüter	obowiązuje od:	23.01.2002
Zatwierdził	: J. Gorschlüter		Strona 1 z 4

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- 1. Aim** The aim of this process instruction is to determine the quality specification for the surface of metal parts supplied to GOTEC.
- 2. Application** This process instruction applies to pre-treatment of parts.
- 3. Terms/Definitions** This process instruction applies to all materials such as steel, aluminium, plastics and special materials supplied to GOTEC. Every and any of them is referred to as "part(s)" in this process instruction.
- 4. Task description** All notes/guidelines contained in drawings specify and define the quality of the surface of the supplied parts.
- a) Parts must be clear of silicone, graphite, molybdenum disulfide, any molybdenum compounds, zinc soap and/or other lubricants with similar effects
 - b) All part-adhering lubricants, products facilitating the pull broaching/drawing processes, anti-corrosion products must be fully removable in the 70°C alkaline de-greasing bath (pH 10) and/or in chlorinated hydroxide compounds in a single cleaning process. Solubility in xylene and benzene is also required.
 - c) Parts shall be free from corrosion, scale, oil/carbon deposit, contamination/soil and barrel process deposits etc. Surfaces, oil film or pores must be clear of such contamination.
 - d) Parts must be supplied as pure metal. No sinterskin is acceptable on castings.
 - e) Stamped, drawn, turned and/or forged parts should be provided with a thin clear oil film such as Esso Rust Ban 310 which emulsifies with water to ensure protection against corrosion. The mix proportion is 1 part of volume of oil and 20 parts of volume of water. The mix proportion is determined by oiling, i.e. oil volume wyznacznik ilości oleju. There is no recommended oil specification. Other water emulsifiers are also acceptable. The oil content obtained with Esso Rust Ban 310 must be maintained. A specification sheet and a product/material safety data sheet must be presented to GOTEC to obtain approval for an oil. The separation of oil and water may be avoided by ensuring good diffusion (by mixing and pumping). Otherwise floating oil may result in too high oiling. Monitoring and checks should help maintain the recommended 1:20 proportion. Alternately, the anti-corrosion effect may also be produced by protecting parts with alkaline. An alkaline coating is applied by immersion in or spraying with a degreasing agent. Instructions in paragraph 4h must be followed.
 - f) No oil or alkaline film/coating is acceptable on parts made of aluminium or aluminium alloys. If an aluminium part is provided with a steel insert, the insert must be slightly coated with oil, see 4e!

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- g) No alkaline surface is acceptable on any parts marked with a special note.
- h) Galvanised parts must be supplied with official test certificates and elements which have passed the required surface testing.
- i) Surface contamination guidelines:
Wipe your finger or the back of your hand across the surface.
A metallicly clean surface should be clear of any marks [streaks of dirt, smudges etc.].
Marks [streaks of dirt, smudges etc.] are visible on a contaminated surface.
- j) Parts must be heat resistant (>140°C).

5. Guidelines / Notes

6. Documents

- Terms and Conditions of Purchase
- Current framework agreement

7. Records / Documentation

This instruction is subject to reviews and recording. In the event of any amendments and/or alterations, the latest issue must be incorporated in the quality records. This instruction is a binding regulation valid for the minimum of 3 years effective from the date of amendment/alteration.

8. Change tracking

The quality assurance representative is responsible for the change tracking in relation of this process document. All amendments/alterations shall be introduced by the Chemical Surface Treatment Department. In the event of any process modification, the process owner shall be responsible for all the necessary communications.

9. Copies [Attention of]

This process instruction is filed on the GOTEC Intranet

10. Appendices/Enclosures/Schedules

None

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