| **Bearbeitung:**  External Specification: | **AIPS02-03-006 Type 2 Class 1** |
| --- | --- |

| ISO2859 T1 S1 AQL 1,5 | ISO2859 T1 S3 AQL 1,5 | Folgenden Anweisungen ist Folge zu leisten:  Follow Instructions below |
| --- | --- | --- |
| | **Los** | **Stichprobe** | **Max. schlechte Bauteile** | | --- | --- | --- | | 2-50 | **2** | **0** | | 51-500 | **3** | | 501-35000 | **5** | | | **Los** | **Stichprobe** | **Max. schlechte Bauteile** | | --- | --- | --- | | 2-15 | **2** | **0** | | 16-50 | **3** | | 51-150 | **5** | | 151-500 | **8** | | 501-3200 | **13** | | 3201-35000 | **20** | | 35001-500000 | **32** | **1** | | 1. Vorsichtige Handhabung der Bauteile. Carefull handling of components |
| 1. Bauteile nur mit sauberen Latex/Nitril Handschuhen gemäß VD-A44 handhaben.   Handle components with clean Latex/Nitril gloves only.  (Follow instructions of VD-A44 |
|  |  | 1. Bei Abweichungen am Bauteil hinsichtlich Aussehen und Dimensionen ist die Abteilung PPS zu informieren.   In case of deviations on the component regarding to appearance and the dimensions, the PPS department must be informed. |

| **Tab. 1:** Bauteil-Dimensionen  Tab. 1: Part dimensions | | |
| --- | --- | --- |
| **Bauteil Ø**  Part | **mm** | **Stückgewicht**  Piece weight | | **g** | **Fläche/Stück**  Surface/piece | **mm2** |
| **Gesamtgewicht**  Total weight | **kg** | **Gesamtfläche**  Total surface | | **m2** |  |  |
|  |  |  | |  |  |  |

| **[WE]** | **Wareneingangskontrolle** Incoming goods inspection | | | | | | | | | Nachweis siehe ND-P83  For evidence see ND-P83 | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | | | | | | | |
| 010 | Externe Anweisung: **--**  External procedure: | Interne Anweisung: **VD-P26**  Internal procedure: | | | | | | | |
|  |  |  | | | | | | | |
| **[Q]** | **Qualitätssicherung Eingang**  Incoming quality assurance | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp |
|  |  | | | | | | | | |
| 015 | Externe Anweisung: **--**  External procedure: | Interne Anweisung: **VD-A421**  Internal procedure: | | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: |  | |  | | | | Uhrzeit | |
|  | Punkte QS ausfüllen  Fill out items QS | **ND-P83** | | | | | | | |
| Kontrolle der Bauteile auf Beschädigung  Inspection for damages | **ISO2859 T1 S3** | | | | | | | |
| **PM Nummer Prüfmittel:**  PM number of Test equipment: | **Bitte auf FU notieren**  Please note on FU | | | | | | | |
| **Schichtdicke/Tüpfeltest** Prüfgegenstand:  Test specimen for Thickness / adhesion/ Drop Test: | **2 Testteile (Blech)**  2 test specimens (Sheet) | | | | | | | |
| **Schichtdicke/Tüpfeltest** Material Prüfgegenstand:  Material test specimen for Thickness / adhesion / Drop Test: | **Stahl 4130** oder vergleichbar  Steel 4130 or equivalent material | | | | | | | |
| **Schichtdicke/Tüpfeltest** Abmaße Prüfgegenstand:  Dimensions test specimen for Thickness / adhesion/ Drop Test: | **ca.100 x 25 x 1mm** | | | | | | | |
| **Testteile gravieren und dokumentieren:**  Engrave and document test specimen: |  | |  | | |  | | |
| **Anzahl geprüfter Bauteile:**  Amount of parts checked: |  | |  | | |  | | |
| **Beurteilung der Bauteile**:  Part evaluation: | **i.O**  passed | X | **n.i.O**  failed | X | |  | | |
|  | **Uhrzeit Ende AG:**  End of workstep: |  | |  | | | Uhrzeit | | |
|  |  |  | | | | | | | |
| **[P]** | **Alkalische Ultraschallentfettung** Alkaline ultrasonic degreasing | | | | | | | | Datum  Date | | MA-Stempel  Employee stamp |
|  |  | | | | | | | |
| 020 | Externe Anweisung: **--**  External procedure: | Interne Anweisung: **VD-P47**  Internal procedure: | | | | | | |
|  | **Achtung! Ab 12 mm Ø oder einer Länge von 100 mm den Drehantrieb AUS - schalten!**  Attention! Switch the rotary actuator OFF | | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: |  | |  | | | Uhrzeit | |
|  | Zulässige Anlage:  Permitted equipment: | **UE 1, TE 1** | | | | | | |
| **Ultraschall verwendet:**  Ultrasonic used: | **Ja**  Yes | X | **Nein**  No | X |  | | |
| **Verwendete Anlage:**  Used equipment: |  | |  | |  | | |
| **Transportbehälternummer dokumentieren:**  Document the transport container ID: |  | |  | |  | | |
| **Uhrzeit Ende AG:**  End of workstep: |  | |  | | Uhrzeit | | |
|  |  | | | | | | |

| **[P]** | **Wasserbruchtest** Water break free test | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | | | | | | | | | |
| 025 | Externe Anweisung: **ISO2859 T1 S3**  External procedure: | | | | Interne Anweisung: **VD-A20**  Internal procedure: | | | | | |
|  | **Hinweis: Kalibrierten Timer benutzen!**  Note: Use a calibrated timer! | | | | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | |  | |  | | | Uhrzeit |
|  | Die Bauteile mit VE-Wasser benetzen:  Moisten the parts with demineralised water. | | | | **≥ 30 sec.** | | | | | |
| Prüfmittel:  Test equipment: | | | | **Auge**  Eye |  |  | |  |  |
| **Timer Nr. dokumentieren:**  Document timer no: | | | |  |  |  | |  |  |
| **Anzahl geprüfter Bauteile:**  Amount of parts checked: | | | |  |  |  | |  |  |
| **Beurteilung der Bauteile**:  Part evaluation: | | | | **i.O**  passed | X | **n.i.O**  failed | | X |  |
|  | **Auswertung:** Bei **n.i.O** Wiederholung der Entfettung.  Evaluation: If a Water break is visible repeat degreasing | | | | | | | | | |
|  |  | | |  | | | | | | |
| **[P]** | **Drucklufttrocknen** Drying with compressed air | | | | | | | | | |
|  |  | | | | | | | | | |
| 030 | Externe Anweisung: **--**  External procedure: | | | | Interne Anweisung: **VD-A8**  Internal procedure: | | | | | |
|  | **Geprüfter Druckluftentnahmepunkt (DLEP):**  Tested compressed air extraction point: | | | |  | |  | | |  |
|  | **Uhrzeit Ende AG:**  End of workstep: | | | |  | |  | | | Uhrzeit |
|  |  | |  | | | | | | | |
| **[P]** | **Thermisches Trocknen** Thermal drying | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp |
|  |  | | | | | | | | | |
| 035 | Externe Anweisung: **--**  External procedure: | | | | Interne Anweisung: **VD-P48**  Internal procedure: | | | | | |
|  | **Hinweis: Kalibrierten Timer benutzen!**  Note: Use a calibrated timer! | | | | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | |  | |  | | | Uhrzeit |
|  | Zulässiger Ofen:  Permitted oven: | | | | **O 3, O 6, O 8** | | | | | |
|  | Empfohlene Trocknungsdauer:  Recommended drying time: | | | | **≥ 20 min** | | | | | |
|  | Maximal zulässige Temperatur:  Maximum Permissible temperature: | | | | **100 ± 5 °C** | | | | | |
|  | **Verwendeter Ofen:**  Used oven: | | | |  | |  | | |  |
|  | **Timer Nr. dokumentieren:**  Document timer no: | | | |  | |  | | |  |
|  | **Uhrzeit Ende AG:**  End of workstep: | | | |  | |  | | | Uhrzeit |
|  |  |  | | | | | | | | |
| **[P]** | **Werkerselbstkontrolle** Worker self check | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp |
|  |  | | | | | | | | | |
| 040 | Externe Anweisung: **ISO2859 T1 S1**  External procedure: | | | | Interne Anweisung: **VD-A21**  Internal procedure: | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | |  | |  | | | Uhrzeit |
|  | Bauteile auf Beschädigungen und vollständige Trocknung prüfen.  Check component for damage and complete drying. | | | | | | | | | |
| **Anzahl geprüfter Bauteile:**  Amount of parts checked: | | | |  | |  | | |  |
| **Beurteilung der Bauteile:**  Part evaluation: | | | | **i.O**  passed | X | **n.i.O**  failed | X | |  |
| **Transportbehälternummer dokumentieren:**  Document the transport container ID: | | | |  |  |  |  | |  |
| **Anzahl der Testteile:**  Check amount of test specimen: | | | |  |  |  |  | |  |
| **Uhrzeit Ende AG:**  End of workstep: | | | |  | |  | | | Uhrzeit |
|  |  |  | | | | | | | | |

| **[P]** | | | | **Al2O3-Aktivierung** Al2O3-Grit Blasting | | | | | | | | | | | | | | | | | | | Datum  Date | | MA-Stempel  Employee stamp | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | |  | | | | | | | | | | | | | | | | | | |
| 045 | | | | Externe Anweisung: **--**  External procedure: | | | | | | | Interne Anweisung: **VD-A8, VD-A423**  Internal procedure: | | | | | | | | | | | |
|  | | | | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | | | |  | | | | |  | | | | | Uhrzeit | |
|  | | | | **Geprüfter Druckluftentnahmepunkt (DLEP):**  Tested compressed air extraction point: | | | | | | |  | | | | |  | | | | |  | |
|  | | | | Zulässige Strahlanlage:  Permitted blasting equipment: | | | | | | | **EK 4, EK 7** | | | | | | | | | | | |
|  | | | | Zulässiges Strahlmittel:  Permitted blasting media: | | | | | | | **F120** | | | | | | | | | | | |
|  | | | | Zulässiger Druck:  Permitted pressure: | | | | | | | **4,5 - 5,5 bar** | | | | | | | | | | | |
|  | | | | Abstand Düse-Bauteil:  Distance nozzle part: | | | | | | | **20 ± 10 cm** | | | | | | | | | | | |
|  | | | | **Verwendete Anlage:**  Used equipment: | | | | | | |  | | | | |  | | | | |  | |
|  | | | |  | | |  | | | | | | | | | | | | | | | |
| **[P]** | | | | **Druckluftreinigen** Cleaning with compressed air | | | | | | | | | | | | | | | | | | |
|  | | | |  | | | | | | | | | | | | | | | | | | |
| 050 | | | | Externe Anweisung: **--**  External procedure: | | | | | | | Interne Anweisung: **VD-A8, VD-A42**  Internal procedure: | | | | | | | | | | | |
|  | | | | **Uhrzeit Ende AG:**  End of workstep: | | | | | | |  | | | | |  | | | | | Uhrzeit | |
|  | | | |  |  | | | | | | | | | | | | | | | | | |
| **[P]** | | | **Werkerselbstkontrolle** Worker self check | | | | | | | | | | | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp | | |
|  | | |  | | | | | | | | | | | | | | | | | | | |
| 055 | | | Externe Anweisung: **ISO2859 T1 S1**  External procedure: | | | | | | | Interne Anweisung: **VD-A21**  Internal procedure: | | | | | | | | | | | | |
|  | | | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | | | |  | | | | |  | | | | | | Uhrzeit | |
|  | | | Strahlbild: Bauteile müssen eine gleichmäßig matte Oberfläche aufweisen.  Blasted Surface: Surface must have a continuous mat appearance. | | | | | | | | | | | | | | | | | | | |
|  | | | Verunreinigung: Bauteile dürfen keinerlei Verunreinigung aufweisen.  Soiling**:** Parts may not be soiled after blasting is completed. | | | | | | | | | | | | | | | | | | | |
|  | | | Beschädigungen an Bauteilen sind nicht zulässig  Damages are not permissible | | | | | | | | | | | | | | | | | | | |
|  | | | **Anzahl geprüfter Bauteile:**  Amount of parts checked: | | | | | | |  | | | | |  | | | | | |  | |
|  | | | **Beurteilung der Bauteile:**  Part evaluation: | | | | | | | **i.O**  passed | | | X | | **n.i.O**  failed | | | X | | |  | |
|  | | | **Anzahl der Testteile:**  Check amount of test specimen: | | | | | | |  | | |  | |  | | |  | | |  | |
|  | | | **Transportbehälternummer dokumentieren:**  Document the transport container ID: | | | | | | |  | | |  | |  | | |  | | |  | |
|  | | | **Uhrzeit Ende AG:**  End of workstep: | | | | | | |  | | | | |  | | | | | | Uhrzeit | |
|  | | |  | | | | | | |  | | | | | | | | | | | | |
| **[P]** | | **IVD-Al-Beschichtung** IVD-Al coating | | | | | | | | | | | | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp | | |
|  | |  | | | | | | | | | | | | | | | | | | | | |
| 060 | | Externe Anweisung: **AIPS02-03-006**  External procedure: | | | | | | | | Interne Anweisung: **VD-A412**  Internal procedure: | | | | | | | | | | | | |
|  | | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | | | | |  | | | | |  | | | | | | Uhrzeit | |
|  | | **Zulässige Anlagen:**  Permitted systems: | | | | | | | | **IVD 1, IVD 3, IVD 4** | | | | | | | | | | | | |
|  | | **Verwendete IVD-Anlage:**  Used IVD equipment: | | | | | | | |  | | | | |  | | | | | |  | |
|  | | **Fahrtennummer:**  Equipment job number: | | | | | | | |  | | | | |  | | | | | |  | |
|  | | **Uhrzeit Ende AG:**  End of workstep: | | | | | | | |  | | | | |  | | | | | | Uhrzeit | |
|  | |  | | | |  | | | | | | | | | | | | | | | | |
| **[P]** | **Zwischenkontrolle Schichtdicke** Intermediate check coating thickness | | | | | | | | | | | | | | | | | | | | | | Datum  Date | | | MA-Stempel  Employee stamp |
|  |  | | | | | | | | | | | | | | | | | | | | | |
| 065 | Externe Anweisung: **--**  External procedure: | | | | | | | | Interne Anweisung: **VD-A409**  Internal procedure: | | | | | | | | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | | | | |  | | | | |  | | | | | | Uhrzeit | | |
|  | Prüfmethode:  Test method: | | | | | | | | **Magnetinduktiv**  Magnetic induction | | | | | | | | | | | | | |
|  | Prüfgegenstand:  Test specimen: | | | | | | | | **2 Stahl Testteile (Blech)**  2 Steel test specimens (Sheet) | | | | | | | | | | | | | |
|  | **PM Nummer Prüfmittel:**  PM number of test equipment: | | | | | | | |  | | | | |  | | | | | |  | | |
|  | Temperatur der Testteile:  Temperature of test specimens: | | | | | | | | **RT** | | | | | | | | | | | | | |
|  | Jeden Messpunkt **3 x hintereinander** messen.  Each measuring point is measured 3 x in a row | | | | | | | |  | | | | | Mittelwerte je Messpunkt  Mean values per measuring point | | | | | | | | |
|  | Mittelwerte dokumentieren. **[µm]**  Mean value documentation in adjacent table. | | | | | | | | **Testteil Nr.**  Test specimen no | | | | | MP 1 | | | | | MP 2 | | | MP 3 |
|  |  | | | | |  | | | | |  | | |  |
|  |  | | | | |  | | | | |  | | |  |
|  | **Beurteilung der Testteile:**  Test specimen evaluation: | | | | | | | | **i.O**  passed | | | X | | **n.i.O**  failed | | | X | | |  | | |
|  | **Uhrzeit Ende AG:**  End of workstep: | | | | | | | |  | | | | |  | | | | | | Uhrzeit | | |
|  |  | | | | | | |  | | | | | | | | | | | | | | |

| **[P]** | | **Werkerselbstkontrolle** Worker self check | | | | | | | | | | | | | | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | | | | | | | | | | | | | | | | | | | | | | |
| 070 | | Externe Anweisung: **ISO2859 T1 S1**  External procedure: | | | | | | Interne Anweisung: **VD-A21**  Internal procedure: | | | | | | | | | | | | | | | | |
|  | | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | | |  | | | | | | | |  | | | | | | Uhrzeit | | |
|  | | Bauteile müssen eine gleichmäßige Beschichtung ohne Fehlstellen aufweisen. Minimale Kontaktstellen von Bauteilaufnahmen sind zulässig sofern die Beschichtung geschlossen ist.  Parts shall have a uniform coating without any flaws. Contact points caused by jigs are permissible as long as the coating layer is closed. | | | | | | | | | | | | | | | | | | | | | | |
|  | | **Anzahl geprüfter Bauteile:**  Amount of parts checked: | | | | | |  | | | | | | | |  | | | | | |  | | |
|  | | **Wurde die geforderte Schichtdicke erreicht?**  Has the required layer thickness been achieved? | | | | | | **Ja**  Yes | | | X | | | | | **Nein**  No | | X | | | |  | | |
|  | | **Beurteilung der Bauteile:**  Part evaluation: | | | | | | **i.O**  passed | | | X | | | | | **n.i.O**  failed | | X | | | |  | | |
|  | | **Transportbehälternummer dokumentieren:**  Document the transport container ID: | | | | | |  | | |  | | | | |  | |  | | | |  | | |
|  | |  | | | | | |  | |  | |  | | | | |  | | | | |  | | |
| **[P]** | | **Wenden/ Bestücken** Turning / Loading | | | | | | | | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | | | | | | | | |
| 075 | | Externe Anweisung: **--**  External procedure: | | | | Interne Anweisung: **VD-P41**  Internal procedure: | | | | | | | | | | | | | | | | | | |
|  | | **Uhrzeit Ende AG:**  End of workstep: | | | |  | | | | | | | |  | | | | | | | Uhrzeit | | | |
|  | |  |  | | | | | | | | | | | | | | | | | | | | | |
| **[P]** | | **IVD-Al-Beschichtung** IVD-Al coating | | | | | | | | | | | | | | | | | | | | | | Datum  Date | | MA-Stempel  Employee stamp |
|  | |  | | | | | | | | | | | | | | | | | | | | | |
| 080 | | Externe Anweisung: **AIPS02-03-006**  External procedure: | | | | | Interne Anweisung: **VD-A412**  Internal procedure: | | | | | | | | | | | | | | | | |
|  | | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | |  | | | | | | | |  | | | | | | | Uhrzeit | |
|  | | **Zulässige Anlagen:**  Permitted systems: | | | | | **IVD 1, IVD 3, IVD 4** | | | | | | | | | | | | | | | | |
|  | | **Verwendete IVD-Anlage:**  Used IVD equipment: | | | | |  | | | | | | | |  | | | | | | |  | |
|  | | **Fahrtennummer:**  Equipment job number: | | | | |  | | | | | | | |  | | | | | | |  | |
|  | | **Uhrzeit Ende AG:**  End of workstep: | | | | |  | | | | | | | |  | | | | | | | Uhrzeit | |
|  | |  | |  | | | | | | | | | | | | | | | | | | | |
| **[P]** | | **Zwischenkontrolle Schichtdicke** Intermediate check coating thickness | | | | | | | | | | | | | | | | | | | | | | Datum  Date | | MA-Stempel  Employee stamp |
|  | |  | | | | | | | | | | | | | | | | | | | | | |
| 085 | | Externe Anweisung: **--**  External procedure: | | | | | Interne Anweisung: **VD-A409**  Internal procedure: | | | | | | | | | | | | | | | | |
|  | | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | |  | | | | | |  | | | | | | | Uhrzeit | | | |
|  | | Prüfmethode:  Test method: | | | | | **Magnetinduktiv**  Magnetic induction | | | | | | | | | | | | | | | | |
|  | | Prüfgegenstand:  Test specimen: | | | | | **2 Stahl Testteile (Blech)**  2 Steel test specimens (Sheet) | | | | | | | | | | | | | | | | |
|  | | **PM Nummer Prüfmittel:**  PM number of test equipment: | | | | |  | | | | | |  | | | | | | |  | | | |
|  | | Temperatur der Testteile:  Temperature of test specimens: | | | | | **RT** | | | | | | | | | | | | | | | | |
|  | | Jeden Messpunkt **3 x hintereinander** messen.  Each measuring point is measured 3 x in a row | | | | |  | | | | | | Mittelwerte je Messpunkt  Mean values per measuring point | | | | | | | | | | |
|  | | Mittelwerte dokumentieren. **[µm]**  Mean value documentation in adjacent table. | | | | | **Testteil Nr.**  Test specimen no | | | | | | MP 1 | | | | | | MP 2 | | | | MP 3 |
|  | |  | | | | | |  | | | | | |  | | | |  |
|  | |  | | | | | |  | | | | | |  | | | |  |
|  | | **Beurteilung der Testteile:**  Test specimen evaluation: | | | | | **i.O**  passed | | X | | | | **n.i.O**  failed | | | | X | | |  | | | |
|  | | **Uhrzeit Ende AG:**  End of workstep: | | | | |  | | | | | |  | | | | | | | Uhrzeit | | | |
|  | |  | | |  | | | | | | | | | | | | | | | | | | |
| **[P]** | **Entnahme** Part withdrawl | | | | | | | | | | | | | | | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp |
|  |  | | | | | | | | | | | | | | | | | | | | | | | |
| 090 | Externe Anweisung: **--**  External procedure: | | | | | | | Interne Anweisung: **VD-A412**  Internal procedure: | | | | | | | | | | | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | | | |  | | | | | | | |  | | | | | | Uhrzeit | | |
|  | **Anzahl der Testteile:**  Check amount of test specimen: | | | | | | |  | | | | | | | |  | | | | | |  | | |
|  | **Transportbehälternummer dokumentieren:**  Document the transport container ID: | | | | | | |  | | | | | | | |  | | | | | |  | | |
|  | **Uhrzeit Ende AG:**  End of workstep: | | | | | | |  | | | | | | | |  | | | | | | Uhrzeit | | |
|  |  | | |  | | | | | | | | | | | | | | | | | | | | |

| **[P]** | **Werkerselbstkontrolle** Worker self check | | | | | | | | | | | | | | | | | Datum  Date | | MA-Stempel  Employee stamp |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | | | | | | | | | | | | | | | | |
| 095 | Externe Anweisung: **ISO2859 T1 S1**  External procedure: | | | | | Interne Anweisung: **VD-A21**  Internal procedure: | | | | | | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | |  | | | | | |  | | | | Uhrzeit | |
|  | Bauteile müssen eine gleichmäßige Beschichtung ohne Fehlstellen aufweisen. Minimale Kontaktstellen von Bauteilaufnahmen sind zulässig sofern die Beschichtung geschlossen ist.  Parts shall have a uniform coating without any flaws. Contact points caused by jigs are permissible as long as the coating layer is closed. | | | | | | | | | | | | | | | | |
|  | **Anzahl geprüfter Bauteile:**  Amount of parts checked: | | | | |  | | | | | |  | | | |  | |
|  | **Wurde die geforderte Schichtdicke erreicht?**  Has the required layer thickness been achieved? | | | | | **Ja**  Yes | | X | | | | **Nein**  No | | | X |  | |
|  | **Beurteilung der Bauteile:**  Part evaluation: | | | | | **i.O**  passed | | X | | | | **n.i.O**  failed | | | X |  | |
|  | **Transportbehälternummer dokumentieren:**  Document the transport container ID: | | | | |  | |  | | | |  | | |  |  | |
|  | **Uhrzeit Ende AG:**  End of workstep: | | | | |  | |  | | | | |  | |  | Uhrzeit | |
|  |  | | | | |  |  | |  | | | | |  | |  | |
| **[P]** | | **Glaskugelstrahlen** Glass bead peening | | | | | | | | | | | | | | | | Datum  Date | | MA-Stempel  Employee stamp | | |
|  | |  | | | | | | | | | | | | | | | |
| 100 | | Externe Anweisung: **--**  External procedure: | | | | Interne Anweisung: **VD-A8, VD-P46**  Internal procedure: | | | | | | | | | | | |
|  | | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | |  | | | | |  | | | | | | Uhrzeit |
|  | | **Geprüfter Druckluftentnahmepunkt (DLEP):**  Tested compressed air extraction point: | | | |  | | | | |  | | | | | |  |
|  | | Zulässige Strahlanlage:  Permitted blasting equipment: | | | | **GP 1, GP 5, GP 4, GP6** | | | | | | | | | | | |
|  | | Zulässiger Druck **GP 1, GP 5, GP6**:  Permitted pressure GP 1, GP 2: | | | | **0,8 – 1,2 bar** | | | | | | | | | | | |
|  | | Zulässiger Druck **GP 4**:  Permitted pressure GP 4: | | | | **2,6 - 3,2 bar** | | | | | | | | | | | |
|  | | **Verwendete Anlage:**  Used equipment: | | | |  | | | |  | | | | | |  | |
|  | | **Offenzeit:** Glaskugelstrahlen - Passivierung  Open time: glass bead blasting - passivation | | | | **≤ 24 h** | | | | | | | | | | | |
|  | |  | | |  | | | | | | | | | | | | |
| **[P]** | | **Druckluftreinigen** Cleaning with compressed air | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | |
| 105 | | Externe Anweisung: **--**  External procedure: | | | | Interne Anweisung: **VD-A8, VD-A42**  Internal procedure: | | | | | | | | | | | |
|  | | **Uhrzeit Ende AG:**  End of workstep: | | | |  | | | | |  | | | | | | Uhrzeit |
|  | |  | |  | | | | | | | | | | | | | |
| **[P]** | **Werkerselbstkontrolle** Worker self check | | | | | | | | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp | | |
|  |  | | | | | | | | | | | | | | | | |
| 110 | Externe Anweisung: **ISO2859 T1 S1**  External procedure: | | | | | Interne Anweisung: **VD-A41**  Internal procedure: | | | | | | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | |  | | | | | |  | | | | Uhrzeit | |
|  | **Offenzeit:** Glaskugelstrahlen - Passivierung  Open time: glass bead blasting - passivation | | | | | **≤ 24 h** | | | | | | | | | | | |
|  | Bauteile müssen eine gleichmäßige Beschichtung ohne Fehlstellen aufweisen.  Parts must have uniform appearance without any flaws. | | | | | | | | | | | | | | | | |
|  | **Anzahl geprüfter Bauteile:**  Amount of parts checked: | | | | |  | | | | | |  | | | |  | |
|  | **Anzahl der Testteile:**  Check amount of test specimen: | | | | |  | | | | | |  | | | |  | |
|  | **Beurteilung der Bauteile:**  Part evaluation: | | | | | **i.O**  passed | | X | | | | **n.i.O**  failed | | | X |  | |
|  | **Transportbehälternummer dokumentieren:**  Document the transport container ID: | | | | |  | | | | | |  | | | |  | |
|  | **Uhrzeit Ende AG:**  End of workstep: | | | | |  | | | | | |  | | | | Uhrzeit | |
|  |  | |  | | | | | | | | | | | | | | |

| **[P]** | | **Passivierung (SurTec 650)** Passivation (SurTec 650) | | | | | | | | | | | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | | | | | | | | | | | | | | | | | | | |
| 115 | | Externe Anweisung: **--**  External procedure: | | | | | | | Interne Anweisung: **VD-A412**  Internal procedure: | | | | | | | | | | | | |
|  | | **Hinweis: Kalibrierten Timer benutzen!**  Note: Use a calibrated timer! | | | | | | | | | | | | | | | | | | | |
|  | | **Uhrzeit Beginn AG:**  Beginning of  workstep: | | | | | | |  | | | | |  | | | | | | Uhrzeit | |
|  | | **Offenzeit:** Glaskugelstrahlen - Passivierung  Open time: glass bead blasting - passivation | | | | | | | **≤ 24 h** | | | | | | | | | | | | |
|  | | Bauteile müssen eine gleichmäßige Beschichtung ohne Fehlstellen aufweisen.  Parts must have uniform appearance without any flaws. | | | | | | | | | | | | | | | | | | | |
|  | | Zulässige Behandlungsbäder:  Permitted treatment baths: | | | | | | | **5.1, 5.2, 5.3** | | | | | | | | | | | | |
|  | | Temperatur Bad 5.1:  Temperature Bath 5.1: | | | | | | | **30 - 40 °C** | | | | | | | | | | | | |
|  | | Tauchzeit Bad 5.1:  Immersion time bath 5.1: | | | | | | | **2,5 - 3,5 min** | | | | | | | | | | | | |
|  | | Tauchzeit Bad 5.2:  Immersion time bath 5.2: | | | | | | | **30 - 60 sec.** | | | | | | | | | | | | |
|  | | Dauer Spritzspülen Bad 5.3:  Duration of spray rinsing Bad 5.3: | | | | | | | **30 - 60 sec.** | | | | | | | | | | | | |
|  | | **Timer Nr. dokumentieren:**  Document timer no: | | | | | | |  | | | | | |  | | | | |  | |
|  | | **Tauchzeit Bad 5.1:**  Immersion time bath 5.1: | | | | | | |  | | | | | |  | | | | |  | |
|  | | **Tauchzeit Bad 5.2:**  Immersion time bath 5.2: | | | | | | |  | | | | | |  | | | | |  | |
|  | | **Dauer Spritzspülen Bad 5.3:**  Duration of spray rinsing Bad 5.3: | | | | | | |  | | | | | |  | | | | |  | |
|  | | **Beurteilung der Bauteile:**  Part evaluation: | | | | | | | **i.O**  passed | | X | | | | **n.i.O**  failed | | X | | |  | |
|  | |  | | | |  | | | | | | | | | | | | | | | |
| **[P]** | | **Drucklufttrocknen** Drying with compressed air | | | | | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | | | | | |
| 120 | | Externe Anweisung: **--**  External procedure: | | | | | Interne Anweisung: **VD-A21**  Internal procedure: | | | | | | | | | | | | | | |
|  | | **Geprüfter Druckluftentnahmepunkt (DLEP):**  Tested compressed air extraction point: | | | | |  | | | | | | | |  | | | | |  | |
|  | | **Uhrzeit Ende AG:**  End of workstep: | | | | | | |  | | | | | |  | | | | | Uhrzeit | |
|  | |  | |  | | | | | | | | | | | | | | | | | |
| **[P]** | **Thermisches Trocknen** Thermal drying | | | | | | | | | | | | | | | | | | | | Datum  Date | | MA-Stempel  Employee stamp | | |
|  |  | | | | | | | | | | | | | | | | | | | |
| 125 | Externe Anweisung: **--**  External procedure: | | | | | | | Interne Anweisung: **VD-P48**  Internal procedure: | | | | | | | | | | | | |
|  | **Hinweis: Kalibrierten Timer benutzen!**  Note: Use a calibrated timer! | | | | | | | | | | | | | | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | | | |  | | | |  | | | | | | Uhrzeit | | |
|  | Zulässige Öfen:  Permitted oven: | | | | | | | **O 3, O5** | | | | | | | | | | | | |
|  | Empfohlene Trocknungsdauer:  Recommended drying time: | | | | | | | **≥ 20 min** | | | | | | | | | | | | |
|  | Maximal zulässige Temperatur:  Maximum permissible temperature: | | | | | | | **45 ± 5 °C** | | | | | | | | | | | | |
|  | **Timer Nr. dokumentieren:**  Document timer no: | | | | | | |  | | | |  | | | | | |  | | |
|  | **Verwendete Anlage:**  Used equipment: | | | | | | |  | | | |  | | | | | |  | | |
|  | **Uhrzeit Ende AG:**  End of workstep: | | | | | | |  | | | |  | | | | | | Uhrzeit | | |
|  |  | | | |  | | | | | | | | | | | | | | | |
| **[P]** | **Werkerselbstkontrolle** Worker self check | | | | | | | | | | | | | | | | | | | | Datum  Date | | MA-Stempel  Employee stamp |
|  |  | | | | | | | | | | | | | | | | | | | |
| 130 | Externe Anweisung: **ISO2859 T1 S1**  External procedure: | | | | | | Interne Anweisung: **VD-A21**  Internal procedure: | | | | | | | | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | | |  | | | | | |  | | | | | | Uhrzeit | |
|  | Bauteile müssen eine gleichmäßige Beschichtung ohne Fehlstellen aufweisen.  Parts must have uniform appearance without any flaws. | | | | | | | | | | | | | | | | | | | |
|  | Farbe:  Colour: | | | | | | **Erzeugt sichtbare, schwach irisierende Schicht**  Creates visible, weakly iridescent layer | | | | | | | | | | | | | |
|  | **Anzahl geprüfter Bauteile:**  Amount of parts checked: | | | | | |  | | | | | |  | | | | | |  | |
|  | **Anzahl der Testteile:**  Check amount of test specimen: | | | | | |  | | | | | |  | | | | | |  | |
|  | **Beurteilung der Bauteile:**  Part evaluation: | | | | | | **i.O**  passed | | | X | | | **n.i.O**  failed | | | X | | |  | |
|  | **Transportbehälternummer dokumentieren:**  Document the transport container ID: | | | | | |  | | | | | |  | | | | | |  | |
|  | **Uhrzeit Ende AG:**  End of workstep: | | | | | |  | | | | | |  | | | | | | Uhrzeit | |
|  |  | |  | | | | | | | | | | | | | | | | | |

| **[Q]** | | **Endkontrolle Sichtprüfung / FAIR erstellen** Final visual Inspection / Write FAIR | | | | | | | | | | | | | | | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | | | | | | | | | | | | | | | | | | | | | | | |
| 135 | | Externe Anweisung: **AIPS02-03-006, DIN 9102**  External procedure: | | | | | | | Interne Anweisung:  **VD-A109, VD-A443**  Internal procedure: | | | | | | | | | | | | | | | | |
|  | | **Uhrzeit Beginn AG:**  Beginning of workstep: | | | | | | |  | | | | | | | |  | | | | | Uhrzeit | | | |
|  | | Prüfmenge:  Inspected quantity: | | | | | | | **Sichtprüfung über das gesamte Los** | | | | | | | | | | | | | | | | |
|  | | Bauteile müssen eine gleichmäßige Beschichtung ohne Fehlstellen aufweisen.  Parts must have uniform appearance without any flaws. | | | | | | | | | | | | | | | | | | | | | | | |
|  | | **Beurteilung der Bauteile:**  Part evaluation: | | | | | | | **i.O**  passed | | X | | | | | | **n.i.O**  failed | | X | | |  | | | |
|  | | **EMPB notwendig?**  EMPB necessary? | | | | | | | **Ja**  Yes | | X | | | | | | **Nein**  No | | X | | |  | | | |
|  | | **EMPB Dokumentation erstellt?**  EMPB documentation created? | | | | | | | **Ja**  Yes | | X | | | | | | **Nein**  No | | X | | |  | | | |
|  | |  | |  | | | | | | | | | | | | | | | | | | | | | |
| **[Q]** | | **Endkontrolle Schichtdicke** Final check coating thickness | | | | | | | | | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | | | | | | | | | |
| 140 | | Externe Anweisung: **AIPS02-03-006**  External procedure: | | | | | | | Interne Anweisung: **VD-A409**  Internal procedure: | | | | | | | | | | | | | | | | |
|  | | Prüfmethode:  Test method: | | | | | | | **Magnetinduktiv**  Magnetic induction | | | | | | | | | | | | | | | | |
|  | | Prüfgegenstand:  Test specimen: | | | | | | | **2 Stahl Testteile (Blech)**  2 Steel test specimens (Sheet) | | | | | | | | | | | | | | | | |
|  | | **PM Nummer Prüfmittel:**  PM number of Test equipment: | | | | | | |  | | | | | | | |  | | | | |  | | | |
|  | | Temperatur der Bauteile:  Temperature of parts: | | | | | | | **RT** | | | | | | | | | | | | | | | | |
|  | | Jeden Messpunkt **3 x hintereinander** messen.  Each measuring point is measured 3 x in a row | | | | | | | | | | | | | | | | | | | | | | | |
|  | | Messwerte im **2.1 Zeugnis** dokumentieren.  Document measured values in the 3.1 Acceptance test certificate. | | | | | | | | | | | | | | | | | | | | | | | |
|  | |  | |  | | | | | | | | | | | | | | | | | | | | | |
| **[Q]** | | **Tüpfeltest** Drop Test | | | | | | | | | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | | | | | | | | | |
| 145 | | Externe Anweisung: **--**  External procedure: | | | | | | | Interne Anweisung: **VD-A110**  Internal procedure: | | | | | | | | | | | | | | | | |
|  | | **Hinweis: Kalibrierten Timer benutzen!**  Note: Use a calibrated timer! | | | | | | | | | | | | | | | | | | | | | | | |
|  | | Prüfgegenstand:  Test item: | | | | | | | **2 Stahl Testteile (Blech)**  2 Steel test specimens (Sheet) | | | | | | | | | | | | | | | | |
|  | | Die geprüften Testteile separat verpacken und der Position beilegen.  Pack the tested Test specimen separately and enclose them with the item. | | | | | | | | | | | | | | | | | | | | | | | |
|  | | **Timer Nr. dokumentieren:**  Document timer no: | | | | | |  | | | | | | | |  | | | | | | |  | | |
|  | | **Reaktionsdauer dokumentieren:** (Farbumsschlag von Blau zu Gelb)  Document reaction time: (colour change from blue to yellow) | | | | | |  | | | | | | | |  | | | | | | |  | | |
|  | | **Beurteilung der Testteile:**  Test specimen evaluation: | | | | | | **i.O**  passed | | X | | | | | | **n.i.O**  failed | | | | X | | |  | | |
|  | |  | | | |  | | | | | | | | | | | | | | | | | | | |
| **[Q]** | **Endkontrolle Schichthaftung** Final coating adhesion Inspection | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | |
| 150 | Externe Anweisung: **--**  External procedure: | | | | | | Interne Anweisung: **VD-A365, ND-B188**  Internal procedure: | | | | | | | | | | | | | | | | | | |
|  | **Hinweis: Kalibrierten Timer benutzen!**  Note: Use a calibrated timer! | | | | | | | | | | | | | | | | | | | | | | | | |
|  | Prüfmethode:  Test method: | | | | | | **Ritztest**  Scratchtest | | | | | | | | | | | | | | | | | | |
|  | Prüfgegenstand:  Test specimen: | | | | | | **2 Bauteil**  2 Part | | | | | | | | | | | | | | | | | | |
|  | Betrachtung:  Examination: | | | | | | **mit 4x Vergrößerung**  with 4x magnification | | | | | | | | | | | | | | | | | | |
|  | **Timer Nr. dokumentieren:**  Document timer no: | | | | | |  | | | | | | | |  | | | | | | |  | | | |
|  | Durchführung: Beschichtung mit einer scharfen Klinge bis zum Grundmaterial einritzen.  Es ist nur ein Schnitt pro Bauteil vorzunehmen.  Procedure: Scratch coating with sharp edge. Cut must penetrate the coating down to substrate. Only one cut per parts. | | | | | | | | | | | | | | | | | | | | | | | | |
|  | Eine Trennung der Schicht vom Grundmaterial, Abschälung oder Blasenbildung ist nicht zulässig.  Separation of the layer from the base material, peeling or blistering is not permitted. | | | | | | | | | | | | | | | | | | | | | | | | |
|  | **Beurteilung der Bauteile:**  Part evaluation: | | | | | | **i.O**  passed | | | | | X | | **n.i.O**  failed | | | | | X | | | | |  | |
|  |  | | | |  | | | | | | | | | | | | | | | | | | | | |
| **[Q]** | | **Endkontrolle** Final inspection Shop paper control | | | | | | | | | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | | | | | | | | | |
| 155 | | Externe Anweisung: **--**  External procedure: | | | | | | | Interne Anweisung: **--**  Internal procedure: | | | | | | | | | | | | | | | | |
|  | | Der AP ist auf vollständig abgearbeitete Arbeitsgänge zu überprüfen.  Check shop paper for complete and correct flow down. | | | | | | | | | | | | | | | | | | | | | | | |
|  | | Wurden die Kundendokumente ausgefüllt,  kopiert und beigelegt?  Have the customer documents been filled-out, copied and enclosed? | | | | | | | | | | | **Ja**  Yes | | | | | X | | | **Nein**  No | | | | X |
|  | | Gibt es Anmerkungen, welche an den Bereich PPS weitergeleitet werden müssen?  Are there any remarks that need to be forwarded to the Production Planing department? | | | | | | | | | | | **Ja**  Yes | | | | | X | | | **Nein**  No | | | | X |
|  | | Hinweis: Auffälligkeiten und nicht korrekt ausgefüllte Arbeitsschritte bei  der Endkontrolle vom AP sind immer den Bereichsverantwortlichen mitzuteilen.  Note: Any anomalies and not correct flowed down worksteps must be reported to superior | | | | | | | | | | | | | | | | | | | | | | | |
|  | | **Uhrzeit Ende AG:**  End of workstep: | | | | | | |  | | | | | | |  | | | | | | | Uhrzeit | | |
|  | |  |  | | | | | | | | | | | | | | | | | | | | | | |

| **[WA]** | **Verpacken** Packaging | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | | | | | | | | | |
| 160 | Externe Anweisung: **--**  External procedure: | | | Interne Anweisung: **VD-A428**  Internal procedure: | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: | | |  | | |  | | | Uhrzeit |
|  | FU Und AP zusammenheften.  FU And AP Staple Together | | | | | | | | | |
|  | Originalverpackung verwenden.  Sofern diese nicht verwendet wird, bitte Grund in Bemerkungsfeld eintragen.  Use original Packaging. If this is not used, please enter the reason in the comments field. | | | | | | | | | |
|  | **Uhrzeit Ende AG:**  End of workstep: | | |  | | |  | | | Uhrzeit |
|  |  |  | | | | | | | | |
| **[WA]** | **Versandbereitschaft herstellen** Prepare for disbatching | | | | | | | | | | Datum  Date | MA-Stempel  Employee stamp |
|  |  | | | | | | | | | |
| 165 | Externe Anweisung:  External procedure: | | | Interne Anweisung: **VD-P26**  Internal procedure: | | | | | | |
|  | **Uhrzeit Beginn AG:**  Beginning of workstep: | | |  | |  | | | | Uhrzeit |
|  | Vollständigkeit der Papiere prüfen  Paperwork check | | |  | | | | | | |
|  | Ordnungsgemäße Verpackung der Bauteile kontrollieren  Check for correct packaging | | | | | | | | | |
|  | **Transportorganisation**  Transport organization | | | **AC**  AC | X | | **Kunde**  Customer | X |  | |
|  | **Uhrzeit Ende AG:**  End of workstep: | | |  | | |  | | Uhrzeit | |
|  |  | |  | | | | | | | |

| **Bemerkungsfeld**  Comments section | | |
| --- | --- | --- |
| AG Nr.  Workstep number | Bemerkung  Comment | MA-Stempel  Employee stamp |
|  |  |  |
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|  |  |  |

**Revisionsliste der mitgeltenden Dokumente**

List of revisions of applicable documents

| **Dokumenten-Nr.:**  Document Number | **Revision**  Revision | **Internes/ externes Dokument**  Internal/ external Document |
| --- | --- | --- |
| AIPS02-03-006 | 2010-06 | External |
| DIN EN 9102 | 2016-12 | External |
| ISO2859 | 2014-08 | External |
| VD-A8 | Rev. 3 | Internal |
| VD-A20 | Rev. 4 | Internal |
| VD-A21 | Rev. 3 | Internal |
| VD-A42 | Rev. 1 | Internal |
| VD-A44 | Rev. 2 | Internal |
| VD-A109 | Rev. 6 | Internal |
| VD-A110 | Rev. 3 | Internal |
| VD-A365 | Rev. 5 | Internal |
| VD-A409 | Rev. 5 | Internal |
| VD-A412 | Rev. 15 | Internal |
| VD-A421 | Rev. 7 | Internal |
| VD-A423 | Rev. 6 | Internal |
| VD-A424 | Rev. 3 | Internal |
| VD-A428 | Rev. 3 | Internal |
| VD-A443 | Rev. 3 | Internal |
| ND-P83 | Rev. 4 | Internal |
| ND-B188 | Rev. 1 | Internal |
| VD-P26 | Rev. 1 | Internal |
| VD-P47 | Rev. 5 | Internal |
| VD-P48 | Rev. 2 | Internal |