**Inspection Certificate**
Abnahmeprüfungszeugnis DIN EN 10204.3.1
Certificat De reception
Certificado di collaudo
Keuringsrapport

| | | | |
|---|---|---|---|
| **Batch Number** | **2610019** | **Product Name** | Zyglo ZL-2C Fluorescent Penetrant |
| **Date of Manufacture** | 12/10/2026 | **B.B.E.** | 10/2031 |

## Specification: Specification

We hereby certify that when tested at the time of manufacture, the above material:
1. Meets the requirements of and has been tested for sulfur and halogens according to:

a) ASME Boiler and Pressure Vessel Code, 2025 Edition, Section V, Non-destructive Examination.

b) ASTM E-165/E-165M-23, Paragraph 7.1.

c) MIL-STD-2132E, March 29, 2016, Paragraph 6.1.3.

2. Meets the requirements of Rolls Royce RRP 58003 (CSS 232), SAFRAN In 5000 / PR 5000F, AMS 2644J and ASTM E1417/E 1417M-21 EDT1 Paragraph 5.1 & 6.5.1.

Penetrant brightness tested according to ASTM E 1135.

3. We further certify that the material does not contain mercury as a basic element and no mercury bearing equipment was used in its manufacture.

| Test | Section | Limit | Result |
|---|---|---|---|
| Specification | | | Passed |

## Specification: Ion Testing Results

Test results obtained were as follows:

| Test | Section | Limit | Result |
|---|---|---|---|
| Sulphur Content (S) | | Complies with standard | 0.0102% |
| Halogen Content (F + Cl) | | Complies with standard | 0.0041% |

## Specification: AMS 2644J Penetrant Test Results

Type 1 Level 2 Penetrant

When sampled and tested according to paragraph 4.3.2 section 4.2.2.1 of AMS 2644J the following results were obtained:

| Test | Section | Limit | Result |
|---|---|---|---|
| Flashpoint | 3.3.3 | Complies with standard | 108.5 °C |
| Viscosity | 3.3.4 | Complies with standard | 6.25 mm2/s (cSt) |
| Fluorescent Brightness | 3.3.8.3.3 | Complies to standard | 86% |
| Penetrant Removability | 3.3.8.7 | Complies with standard | Passed |
| Water Content | 3.3.8.8 | Complies with standard | 0.04% |

## Specification: EN ISO 3452-2

When tested at the time of manufacture the following results were obtained. The information is derived from our quality checks. It does not relieve the purchaser from examining the product upon delivery and gives no assurance of the product for any particular purpose.

| Test | Section | Limit | Result |
|---|---|---|---|
| Appearance | 6.1 in EN ISO 3452-2 | Equal to Std | Passed |
| Sensitivity for ISO 3452-2 (SMT 58) | 6.2 in EN ISO 3452-2 | Equal to Level 2 reference system | Passed |
| Density (SMT 50) | 6.3 in EN ISO 3452-2 | Nominal 0.895 g/cm3@ 20°C (Limits 0.805 – 0.984) | 0.897 g/cm3@ 20°C |
| Washability (SMT 47) | 6.6 in EN ISO 3452-2 | Equal to Std | Passed |
| Corrosive Properties | 6.11 EN ISO 3452-2 | No Corrosion on Magnesium Alloy | Passed |

| | | | |
|---|---|---|---|
| Flashpoint | 6.5 in EN ISO 3452-2 | Nominal 100°C (Limits 98°C Minimum) | 108.5 °C |
| Viscosity | 6.4 in EN ISO 3452-2 | ±10% Nominal Value | 6.25 mm2/s (cSt) |
| Fluorescent Brightness | 6.7 in EN ISO 3452-2 | ± 10 % of Type Test Sample (Limit not less than 80%) | 100% |
| Water Content | 6.20 in EN ISO 3452-2 | Water Washable Penetrants Only | 0.04% |

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**Specification: Pratt & Whitney Aircraft Results**
VENDOR'S REPORT - TEST RESULTS

REPORTS, MATERIALS CONTROL LABORATORY
PRATT & WHITNEY AIRCRAFT
(Plant to which material is shipped)

This is to certify that paragraph number 1 + 5 apply to the shipment described below (Insert at least one of the first 4, plus 5 if applicable)

1. (Applicable to all raw material, to parts made from raw material furnished or purchased by vendor, or to assemblies of which some or all components are made from raw materials furnished or purchased by vendor) Material, parts, or components of assemblies have been inspected & accepted to the specifications involved, & results of tests required by PWA are as shown herein.

2. (Applicable to parts or assembly components made from raw material furnished by PWA and not chemically or metallurgically treated by vendor so as to change surface or internal condition significantly) Parts or assemblies have been machined or formed from material furnished by PWA to make these parts or components of assemblies.

3. (Applicable to parts or assembly components made from raw material furnished by PWA and chemically or metallurgically treated by vendor so as to change surface or internal condition significantly) Parts or components of assemblies have been made from raw material furnished by PWA to make these parts or components of assemblies. Parts, components of assemblies, or assemblies have been inspected and accepted to the specifications involved, and results of tests required by PWA are as shown herein.

4. (Applicable to repaired or reworked raw material, parts or assemblies) The raw material, parts or assemblies have been reworked or repaired in accordance with PWA instructions, and are the same material, parts or assemblies returned for such reworking or repair, except for replacement of assembly components, in which case paragraphs 1 & 5 are also applicable.

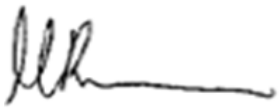
5. (Applicable to all assemblies, and to parts when specifically, authorised by purchaser) Results of all chemical and physical tests not shown below as well as all other evidence which shows acceptability of raw materials & assembly components, are on file and available for inspection at any reasonable time.

PART OR ASS'yNO (Size if no part no): PMC 4352-2
CHG.LTR:
SPECIFICATION AS ORDERED * PWA 300 Rev. BV
QUANTITY:
DATE SHIPPED:
QUANTITY:
DATE SHIPPED:
LOCATION OF PWA PLANT SHIPPED TO:
PACK SUB NO:
PO NO:
HEAT, LOT, CODE or BATCH NO: As listed above
RAW MATERIAL VENDOR:
TYPE COMPOUND or CASTING: ZL-2C Penetrant
PWA HEAT CODES:
* If material, parts or assemblies do not entirely conform to specification requirements, the deviation and authority for furnishing such material are indicated below:
Magnaflux certifies that ZL-2C meets the requirements of PMC 4352-2

| Test | Section | Limit | Result |
|---|---|---|---|
| Separation of Constituents - Homogenous | | None | Passed |
| Fluoride Content | | ≤ 50 ppm | 1ppm |
| Sodium (SMT 44) | | ≤ 0.010 % | 0.0003% |
| Chloride Content | | ≤ 400 ppm | 40ppm |
| Sulphur Content | | ≤ 1000 ppm | 102ppm |
| Flashpoint (SMT 14) | | 93°C Minimum | 108.5 °C |
| Kinematic Viscosity (SMT 17) | | 5.61 - 7.59 mm2/s (cSt) | 6.25 mm2/s (cSt) |
| Water Content (SMT 18) | | Report as found | 0.04% |

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--- EOR ---

| Prepared by | Approved by |
| --- | --- |
|  |  |

**Notes:**
1. Our batch number appears on the label of bulk containers. Aerosols have batch numbers printed on bottom of the container.
2. Most specifications require test results stated in percent, but some require parts per million (ppm). To convert "percent" figures to "parts per million" move the decimal four places to the right.
3. MIL-STD-271, MIL-STD-2132 and ASME Sec V, all require that materials be subject to a procedure to evaporate off volatile solvents before analysis for Sulfur and Halogens. According to these specifications, only those residues higher than 0.005 g/100ml shall be analysed for Sulfur and Halogens. Lower residues shall be reported.
4. The above certification gives the results obtained at the time of manufacture. Age and use may alter the properties of any material.

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