

Inspection Certificate

Abnahmeprüfungszeugnis DIN EN 10204.3.1
Certificat De reception
Certificado di collaudo
Keuringsrapport



| | | | |
|----------------------------|----------------|---------------------|---|
| Batch Number | 2309019 | Product Name | Zygro ZL-60D Water Washable Fluorescent Penetrant |
| Date of Manufacture | 21/09/2023 | B.B.E. | 09/2028 |

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, 2023 Edition, Section V, Non-destructive Examination.

b) Anion analysis by ASTM D129 decomposition followed by Ion Chromatography method Annex A4.

c) ASTM E-165/E-165M-18, Paragraph 7.1.

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

2. Meets the requirements of Rolls Royce RRP 58003 (CSS 232), AMS 2644H, EN ISO 3452-2 and ASTM E 1417/E 1417M-21 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 | | | 10 ppm |
| Halogen Content | | | 141 ppm |

Specification: AMS 2644 Test results

Type 1 Level 2 Penetrant

Meets the requirements of Rolls Royce RRP 58003 (CSS 232), SAFRAN Pr 5000 / In 5000D, AMS 2644H and ASTM E 1417/E 1417M-16 Paragraph 5.1& 6.5.1.

Penetrant brightness tested according to ASTM E 1135.

When tested according to paragraph 4.3.2 of AMS 2644H the following results were obtained:

| Test | Section | Limit | Result |
|------------------------------|-----------|--------------------------------|----------|
| Flashpoint (SMT 14) | 3.3.3 | 93°C Min | 104 °C |
| Kinematic Viscosity (SMT 17) | 3.3.4 | 8.81 - 11.91 cS | 10.07 cS |
| Fluorescent Brightness | 3.3.8.3.2 | Minimum 80% | 105.19 % |
| Water Tolerance (SMT 2) | 3.3.8.5 | 5.0% Minimum | 28.89 % |
| Removability | 3.3.8.6 | Equal to or less than standard | Passed |
| Water Content (SMT 18) | 3.3.8.7 | 1.0% Max | 0.08 % |

Specification: Pratt & Whitney Test Results

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 to change surface or internal condition significantly) Parts or components of assemblies have been made from raw material furnished by PWA to make

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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'y No (Size if no Part no) : PMC-4350-11

Chg Ltr:

Sur no:

Specification as ordered: PWA300 Rev

Quantity:

Date Shipped:

Location of PWA Plant Shipped to:

Pack Sub No:

PO No:

Heat/Lot/Code or Batch No: As stated above

Raw Material Vendor:

Type Compound or Casting: ZL-60D Penetrant

PAW Heat Code:

| Test | Section | Limit | Result |
|---|---------|-----------------------|----------|
| Chloride Content | | </=400ppm | 139 ppm |
| Fluoride Content | | </=50 ppm | 5 ppm |
| Sulphur Content | | </=1000ppm | 10 ppm |
| Sodium (SMT 44) | | </=100ppm | 41 ppm |
| Kinematic Viscosity (SMT 17) | | 8.81 - 11.91 cS @38°C | 10.07 cS |
| Flashpoint (SMT 14) | | 93°C Minimum | 104 °C |
| Fluorescent Brightness | | Minimum 80% | 105.19 % |
| Separation of Constituents - Homogenous | | None | Passed |
| Water Content (SMT 18) | | <1% | 0.08 % |

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Prepared by

A handwritten signature in black ink, appearing to be 'D. Smith'.

Approved by

A handwritten signature in black ink, appearing to be 'J. H. Smith'.

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.

FORMAT: MX 101.137 MC-09 Rev 26

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