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ROYAL TECH TRAINING & CONSULTANCY

Method & level	Liquid Penetrant Testing- Multisector & Level 1
Minimum Course Duration - Days & Hours	3 DAYS - 21 HOURS
Revision & Updated on	Rev 6- Updated on 22-4-26

Prerequisite Mandatory Product Technology Course

Please be informed that PCN has introduced a new requirement for all first-time PCN aspirants. Effective from 1st November 2025, candidates must complete an online Product Technology Training before registering for any PCN course at an approved institute.


The mandatory Product Technology Training Course being introduced exceeds these 'basic prior knowledge' requirements and all students (at whatever level) are required to complete this Product Technology training in advance of attending their first BINDT ATO-approved training course.

This also applies to Level 3 bespoke training where the applicant does not hold a valid ISO 9712 certificate. This training course need only be completed once. Valid ISO 9712 certificates are those recognised by BINDT and as listed in ICNDT OP19 – MRA Schedule 2 and/or European Federation for Non-Destructive Testing (EFNDT) MRA Schedule 2.

If you have already completed this course, please reply with a copy of your certificate. If you have not yet completed it, please follow the instructions below:

Key Points to Note:

- Training Access: <https://wcet-online-training.bindt.org/> (Step-by-step registration guidance is attached).
- A fee of **£60 + VAT** (charged by BINDT) is payable online and is valid for **365 days**.
- Duration: The 24-hour course can be completed online at your convenience.
- Upon payment, you will gain access to course materials consisting of **three modules**: -
Module 1: Industrial Materials –
Module 2: Manufacturing Processes –
Module 3: Introduction to NDT (*Total course duration: approximately 24 hours*)
- A **minimum passing score of 80%** is required.
- Each candidate will have **three attempts** to achieve the passing score.
- Certification: Upon passing, you will receive a Course Completion Certificate, which is mandatory for your registration.
- We encourage all new aspirants to complete this training at the earliest to avoid any delay in the registration process.
- Should you have any questions, please feel free to contact the **Royal Tech team** for assistance.
- Once Product Technology Certificate received, we will proceed with your enrolment for any **Level course**

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PCN Level 1 Dye Penetrant Inspection

Duration: 3 days (21hours) Minimum

Course Overview:

This course provides theory and practical work on test pieces and industrial components, with emphasis on interpretation of defect indications, also comparing sensitivity of the visible and fluorescent methods. Using portable, stationary equipment as required. Dye Penetrant Inspection is a widely applied and method used to locate surface-breaking defects in all non-porous materials (i.e., metals, plastics, or ceramics) using dye. Candidates will gain an enhanced understanding of PT that will enable them to implement this NDT method competently.

Course Content:

1. Basics of NDT, classifications of NDT
2. History and principles of PT- Physical properties of penetrant materials-Viscosity, bleed out, Flash point, Emulsification of penetrant, Development, Coloured and fluorescent penetrant
3. Terminology -Product family, Penetrant, Developer, Remover, Reference block
4. Surface cleaning techniques
5. Penetrant Classification- Classification of Developers
6. Aerosol spray cans, Dip installations, brushing, light sources, measuring units and reference blocks
7. Product technology- welding, casting, forging, wrought and its associate defects
8. Inspection & reporting of welds, casting, wrought products using Visible, fluorescent penetrant of various types of products using various methods
9. Application of a written instruction
10. Practical exercise and Daily assessment

Course Objectives:

1. Understand the basic principles of Dye Penetrant Inspection
2. understanding Pre cleaning techniques, penetration inspection techniques
3. Understanding various equipment's and its applications
4. Carry out penetrant inspection of welds, casting, forgings using water washable, post emulsifiable, solvent removable processes
5. Follow and apply the instructions
6. Meet the syllabus requirements for PCN Level 1 as per PCN GEN Appendix Z1 , PCN24/GEN/APP/PT & PCN24/AQB/REQ/PT

Experience:

- 15 days
- Note: One-day duration is at least seven hours, which can be achieved on a single day or by accumulating hours. The maximum allowable hours in any one day is 12 hours. Experience in days is achieved by dividing the total accumulated hours by 7.