

# James R. Middlehurst

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## PROFESSIONAL SUMMARY

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Detailed Asphalt Laboratory Technician with over 10 years of experience in high-volume production environments. Proven expert in BS EN and ASTM testing protocols, with a track record of reducing material waste by 12% through precise mix adjustments. Dedicated to maintaining 100% compliance with National Highways safety and quality specifications.

## WORK EXPERIENCE

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### Senior Quality Control Technician | Tarmac | Manchester, UK

May 2018 - Present

- Spearheaded the Marshall and SMA mix design programmes, resulting in a 14% increase in pavement durability across 50+ local authority projects.
- Oversaw daily quality control for three asphalt plants producing over 1 million tonnes of mix annually.
- Reduced laboratory operational costs by £25,000 per year by implementing a rigorous preventative maintenance schedule for testing equipment.
- Managed a team of 4 junior technicians, providing mentorship that led to all members achieving Level 3 NVQ certifications within 12 months.
- Resolved critical mix segregation issues at a major airport taxiway project, preventing a potential £200k rework penalty.

### Materials Laboratory Technician | National Highways | Birmingham, UK

Aug 2012 - Apr 2018

- Performed over 2,000 independent compliance audits on private contractors to ensure adherence to Specification for Highway Works.
- Conducted advanced binder testing using Dynamic Shear Rheometers to evaluate high-temperature performance of modified asphalts.
- Achieved 100% accuracy in annual UKAS proficiency testing cycles for six consecutive years.
- Authored 150+ technical reports documenting material failures and proposing engineering solutions for regional managers.
- Verified aggregate quality from 12 separate quarries, ensuring all raw materials met strict hardness and PSV (Polished Stone Value) criteria.

### Asphalt Plant Technician | Hanson UK | Leeds, UK

Jun 2009 - Jul 2012

- Optimised hot-mix asphalt formulas that reduced liquid bitumen consumption by 3% while maintaining all structural parameters.
- Facilitated the transition to Warm Mix Asphalt (WMA) technology, reducing plant fuel consumption by 11%.
- Monitored moisture levels in aggregate stockpiles daily to adjust plant burner settings, improving thermal efficiency.
- Conducted on-site density testing using nuclear gauges for residential paving developments.

## EDUCATION

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### University of Salford | BEng (Hons) | Civil Engineering

Sept 2005 - Jun 2009

### Leeds College of Building | BTEC Higher National Diploma | Construction and the Built Environment

Sept 2003 - Jun 2005

## SKILLS

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BS EN Standards, Marshall Stability Testing, Binder Rheology, Aggregate Gradation, Void Analysis, Equipment Calibration, Quality Control (QC), Data Analysis, Statistical Process Control, LIMS (Lab Information Management Systems), Site Troubleshooting, Project Management, CSCS Card Compliance, Technical Reporting, Sub-contractor Relations

## CERTIFICATIONS

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IAT Diploma in Asphalt Technology | Institute of Asphalt Technology (2020)  
CSCS Skilled Worker Card | CITB (2010)

## LANGUAGES

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English (Native)  
German (B2 (CEFR))

## ACTIVITIES

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### **IAT Annual Conference**

Active member and presenter on sustainable paving techniques and RAP (reclaimed asphalt pavement) usage.

### **Institution of Civil Engineers (ICE)**

Graduate member participating in regional infrastructure focus groups.