



NWABISA NKANYANA

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PROFESSIONAL SUMMARY

Detail-oriented and results-driven **Chemical Engineer** with a BSc from the University of the Witwatersrand and a strong foundation in **ceramic science, process engineering, and production management**. Currently serving as **Body Preparation Manager at Johnson Tiles South Africa**, with a proven track record of optimizing tile body formulations, reducing raw material costs, and enhancing product quality through strategic process improvements. Skilled in laboratory techniques, quality control, and ISO-based Quality Management Systems, with hands-on experience in **slip preparation, spray drying, and XRF analysis** and in-depth knowledge and experience in tile manufacturing technical laboratory tests and instrument verification. Adept at leading teams, driving continuous improvement initiatives, and ensuring compliance with SHERQ standards. I am certified in Lean Six Sigma (Yellow Belt) and trained in ceramic manufacturing, with a passion for innovation and operational excellence in the tile industry.

SKILLS AND INTEREST

- ♦ Leadership
- ♦ Laboratory Techniques (titration, UV spectroscopy, gas and liquid chromatography, tile surface property evaluation, XRF, e.t.c)
- ♦ Solid written and verbal communications
- ♦ Microsoft 365 Proficient
- ♦ Team development and training
- ♦ Hiking & swimming
- ♦ Friendly, courteous and goal oriented
- ♦ Data Analysis and reporting
- ♦ Problem solving, using different techniques, i.e. root cause analysis
- ♦ MATLAB, Visio, QGIS, Google Earth & Aspen Tech proficient
- ♦ Continuous improvement, process optimisation
- ♦ Production management

EDUCATION DETAILS

Umghele Comprehensive School (2012)

Matric - Top 10 Matric student for Maths & Science in District 9

Witwatersrand University (2019)

BSc in Chemical Engineering

Training and certification (2019 to date)

Finance for non-financial managers (GIBS, 2025)

Introduction to ceramic science, technology and manufacturing (American ceramic society, 2024)

XRF online training (Rigaku, 2023)

Fundamentals of leadership (Norcross, 2024)

Youth development programme (Norcross, 2023)

Microsoft excel beginner to advance level (Udemy, 2021)

Lean six sigma yellow belt completed (2023), green belt in progress
Health, Environmental and Safety Representative (2023)
Good Manufacturing Practice (2022)

EMPLOYMENT HISTORY

Nov 2023 – Present

Position: Body preparation Manager

Johnson Tiles South Africa, Olifantsfontein

Providing strategic and technical leadership to the body preparation department, ensuring the supply of high-quality raw materials to production while maintaining strict compliance with cost, quality, safety, and regulatory standards.

Key Responsibilities:

- Ensure consistent production of high-quality, cost-effective slip and spray-dried powder to support wall and floor tile manufacturing.
- Achieve and maintain targeted production volumes, quality specifications, and unit cost performance.
- Control departmental operating budgets and CAPEX related to slip and dust preparation processes.
- Oversee and verify the accurate, timely execution of all required chemical and physical laboratory tests to ensure process and product consistency.
- Implement and uphold ISO-based Quality Management System (QMS) standards across all departmental activities, including documentation, traceability, corrective actions, and continuous improvement initiatives.
- Drive compliance with QMS procedures to ensure product quality, customer satisfaction, and audit readiness always.
- Lead and develop a high-performing team through training, performance management, motivation, and adherence to safety and quality standards.
- Maintain a robust Health & Safety (H&S) program and ensure full alignment with company safety protocols and legal requirements.
- Promote a clean, organized work environment by enforcing strict housekeeping standards.
- Foster cross-departmental collaboration and promote a strong team culture.
- Ensure full compliance with SHERQ (Safety, Health, Environment, Risk, and Quality) procedures and performance standards.

Key achievements in this role includes:

- 15% Gas savings, due to improved product density
- 5% raw material cost saving

Sep 2022 – Sep 2023

Position: Process Engineer

Johnson Tiles South Africa, Olifantsfontein

The role was focused on ensuring efficient, high-quality production while also promoting a safe and innovative working environment. Reporting directly to the Johnson tiles Body preparation manager the following are the main responsibilities:

- Optimizing Processes: Improving production efficiency and reducing waste.
- Research & Development: Working on new tile products and improving existing ones – through lab scale and industrial trials. Includes report writing.
- Quality Control: Ensuring products meet standards through testing and monitoring, through intensive laboratory work - rheological, physical and chemical analysis of raw material and final tile products.
- Cost Control: Raw material issues and stock take, and CAPEX drafting.
- Health & Safety: Conducting safety inspections and ensuring compliance with regulations. Developing SOP's and the plant process diagrams.
- Production Planning: Supplier management, scheduling production and coordinating with maintenance teams.
- Team Supervision: Managing staff and ensuring proper training.
- Problem Solving: Fixing production issues and improving processes.

- Continuous Improvement: Leading projects to enhance productivity and reduce costs.
- Plant Audits: Conducting audits to maintain operational and safety standards.

Key achievements in this role includes:

- 12 Club Mentee – MD mentorship programme
- Rookie of the year 2022
- SETA award recipient
- Successfully testing and implementing a 4-clay tile body – 10% cost saving
- Spray Drier commissioning
- Sourcing a new deflocculant
- XRF machine commissioning

Jan 2022 – Aug 2022

Position Held: Unemployed Learnership Programme

Tiger Brands HPC, Kempton Park

- NQF3 packaging training - 85%,15% practical and theoretical work respectively
 - Factory quality control, packaging line first line maintenance, packaging line filling and closing operations, packing, and unpacking operations.
 - Problem solving using different tools
- Quality Control – Personal Care Lab
 - Sampling and testing incoming raw materials and final products (*pH, Specific Gravity - SG, Spectrophotometer UV, refractive index, Gas and Liquid Chromatography, melting point and moisture content tests with different lab equipment*)
 - Product trend analysis
 - Validation and verification of testing equipment
 - Compounding and Packaging line inspection - line opening, foreign object hunt and 5S coaching
- Process optimisation projects:
 - Perform mass and energy balances
 - Preparing Standard Operating Procedure (SOP's), checklists, and Work Instructions
 - Focused process improvements – 10 Step Kobetsu Kaizen Problem Solving Single Minute Exchange of Die (SMED)
 - Packaging line commissioning - Performance Acceptance Test
 - Packaging line speed verification tests
 - Preparing process flow diagrams for the plant
 - Packaging line profiling

References upon request