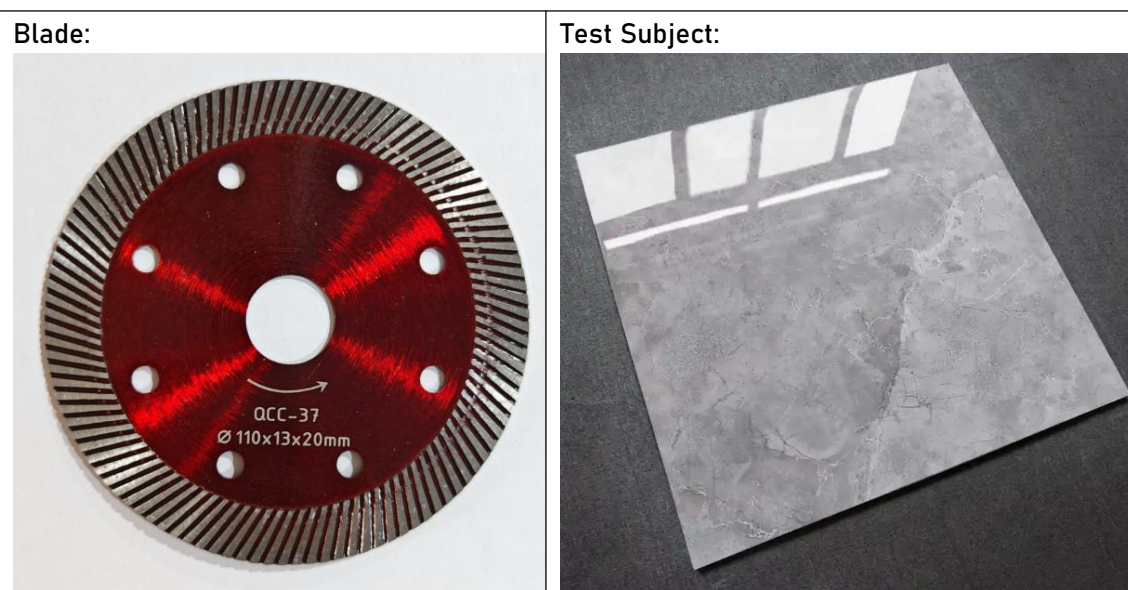


Test Report:

QCC-37 105mm Diamond Blade Cutting Ceramic Tiles

1. Test Overview

This report evaluates the performance of a 105mm diamond blade in cutting ceramic tiles under specified conditions. The test aimed to measure cutting efficiency, blade durability, and segment wear.



2. Test Parameters

Test Date: 2025-3-22

Blade Info: 105mm sintered dry yellow paint; con. turbo rim with 8mm height; arbor: 20mm;

Material Info: medium hard ceramic, size: 80*80cm, thickness: 10mm; Gray colour; no brand;

Blade Diameter: 105mm

Test Date:

Order No.:

Cutting Material: Ceramic Tiles

Material Size:

Machine Power:

Cutting Mode: Dry Cutting

Initial Blade Size:

Segment Hardness (HRB):

3. Test Data

3.1 Cutting Time Performance

The blade completed 80 cutting cycles with the following time distribution:

- Optimal cycles (✓): 63 cycles completed within standard time (marked with "✓").
- Extended cycles (^t): 17 cycles required additional time, ranging from 30–41 seconds

3.2 Blade Wear and Durability

Metric: Value

Initial Segment Size: 12mm

Final Segment Size: 6.3mm

Diamond Layer Loss:

Total Cutting Length:

Segments Remaining: 40, 60, 80 segments

4. Key Observations

4.1 Efficiency: The blade maintained consistent performance for 63 cycles (78.75% of total) within standard time thresholds.

4.2 Wear Progression: Extended cutting times observed in later cycles (66–80) indicate gradual wear, with the final cycle requiring 41 seconds.

4.3 Segment Retention: Segments remained intact after 40, 60, and 80 cycles, demonstrating robust bonding and material integrity.

5. Conclusion

The 105mm diamond blade exhibited satisfactory performance in cutting ceramic tiles, with moderate wear and reliable segment retention. Extended cutting times in later stages suggest the need for periodic blade inspection after 60 cycles to maintain efficiency. Further optimization of blade composition may enhance longevity for high-volume applications.