



Textile barrier efficiency and breathability test results

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| This document certifies the results of the mentioned test(s) carried out under controlled conditions on fabrics for COVID-19 cloth masks. <i>Instrument calibration certificates available on request.</i> | |
| Samples submitted by: SILVEROAKS | Test conditions supervised by: A Gericke Dept. of Chemistry and Polymer Science, University of Stellenbosch |
| Responsible person: Karen | |
| Test Dates: 27 May 2020 | |
| End use: Cloth masks | |

TEST METHOD: Barrier efficiency test based on ISO14644 – adapted to measure the efficiency of textile fabrics and filter materials for use in cloth face masks to be used during COVID-19 pandemic. (The purpose of these masks is to prevent transmission of small respiratory droplets from the wearer to the environment. Cloth masks are not PPE). The test method is based on the attainment of a 5 micron particle count after transmission of an air stream through the sample and an air flow rating that represents the air permeability of the sample.

Results are rated on a 4-point scale as shown below to prevent misinterpretation.

| | | | | |
|----------------|-----------|--------|--------|-----------|
| RATING: | 1 | 2 | 3 | 4 |
| Explanation: | Very poor | Poor | Good | Excellent |
| Value (B) | 0-25% | 25-50% | 50-75% | 75-100% |
| Value (AP) | 0-25% | 25-50% | 50-75% | 75-100% |

| SAMPLE REF | Layers | Barrier rating 5 micron | Barrier rating 1 micron | Air flow rating |
|--|--------|-------------------------|-------------------------|-----------------|
| SMART SILVER COMMUTER MASK (FABRIC MINIMAT AND PONGEE) | 2 | 4 | 4 | 2 |
| SMART SILVER ADVANCED FIT MASK (FABRIC MINIMAT AND FILTER B140) | 2 | 4 | 4 | 3 |

University Disclaimer regarding tests done on textile fabrics intended for cloth face masks:

Stellenbosch University (“SU”) does not have the authority to certify or approve face masks or any component used in its manufacturing. The only certifying authority is the South African Bureau of Standards. Although the testing of textile fabrics and filter materials are carefully conducted by SU, no guarantees or warranties are made by SU for the effectiveness and quality thereof. Test results are based on the samples as received and tested.

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If needed, companies may state “the *[indicate specific part(s)]* of the face mask was tested by a leading South African university”.

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