

Test Report T6292-01-2 Issue 1 MIL-PRF-31013 (Ballistic Resistance) Bolle Safety 8232 Swat Spectacles 27 April 2011



Approved by:

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Prepared by:

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Issued to: Bolle Safety 9200 Cody Overland Park, KS 66214 USA

# **Objective:**

Contract testing to MIL-PRF-31013 (25 April 1996) "Performance Specification-Spectacles, Special Protective Eyewear Cylindrical Systems (SPECS)".

Clause 3.5.1.1 Ballistics resistance

#### Samples:

8232 Swat Spectacles

| Lens Color    | Frame Color | Quantity | Sample ID |
|---------------|-------------|----------|-----------|
| Smoke         | Black       | 30       | 2A        |
| Polarized     | Black       | 30       | 2B        |
| Silver Mirror | Black       | 30       | 2C        |

Date submitted: 04 April 2011

# **Equipment:**

- 1. Pneumatic Air Gun.
- 2. Propellant, Nitrogen.
- 3. Fragment Simulating Projectiles (FSP), 0.15 caliber, 5.8 grain, 4340 steel, Hardness 30 +/- 2 Rockwell C.
- 4. Oehler Research Precision Ballistic Chronographs, two sets of screens with 1' spacing between start and stop. (Set 1: stop screen ~16.0" from sample, Set 2: stop screen ~ 12.5" from sample)
- 5. Ballistic Alderson 50<sup>th</sup> percentile headform with 0.002 inch witness sheet, nominally 2" behind sample.

# **Procedures:**

Testing protocols in accord with good laboratory practice were employed for all tests.

All tests were conducted in a standard laboratory atmosphere unless otherwise specified.

Ten samples were selected at random from the quantity provided.

Samples were mounted on headform and impacted with a 0.15 caliber projectile a velocity of 640 to 660 ft/s. One impact per sample, normal to the front curve, coincident with either the right or left eye. Left and right impact locations were to the visual centers (a point centered on the horizontal center line and 32mm from the vertical center line).

Any velocity loss of the projectile is considered to be negligible with respect to the geometries of the test bench.

The result was considered to be a failure if the aluminum foil witness sheet was punctured or if the lens cracked through its entire thickness.

#### Summary:

Date tested: 21 April 2011

The samples as assessed met the ballistic resistance requirements for spectacles.

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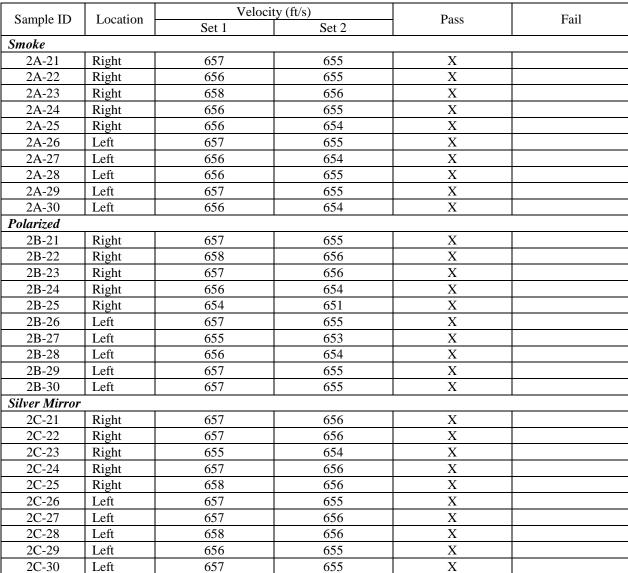
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# **Results:**





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# Sample Photographs:







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- 22. In the event that payment is not received within 15 days of invoice date, Client agrees to pay a late payment charge on the unpaid balance equal to 1-1/2% per month or the maximum charge allowed by law, whichever is less, and all costs and expenses, including attorney's fees where recovery of the same is not prohibited by law, incurred by ICS in collecting such invoices.
- 23. All costs associated with compliance with any subpoena (s) for documents, testimony in a court of law, or for any other purpose relating to work performed by ICS in connection with work performed for that Client, shall be paid by Client. Client shall also pay ICS's then existing standard fee for consulting, deposition and trial testimony and all expenses related thereto.
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