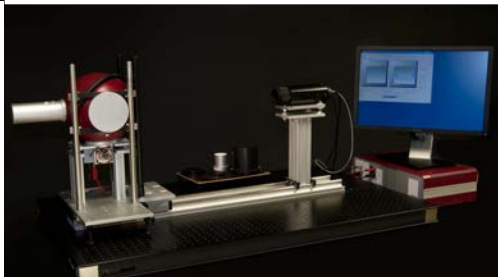
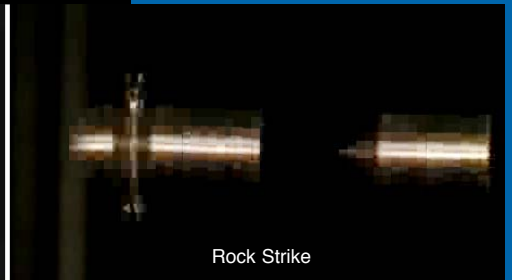


# ATPD-2352

## Testing of Transparent Armor

**Innovation.  
Integrity.  
Dependability.**



***Dayton T. Brown, Inc. has provided the DoD, federal, state, local law enforcement and private industry communities with 60 years of unparalleled professional expertise in engineering and testing. Our engineering team has worked with these communities to help them answer some of their toughest questions. DTB is excited to bring that same tradition of innovation, integrity, dependability, knowledge and experience into Transparent Armor Testing.***

### Typical Transparent Armor Testing

- Allowable Defects, Marking
- Tolerance
- Low Temperature Storage
- High Temperature Storage
- Humidity
- De-Icing
- Cleaning Spray
- Chemicals (Inner and Outer Surfaces)
- Thermal Shock
- Sun Exposure Weathering
- Surface Abrasion
- Rock Strike
- Scratch Resistance
- Optical Testing: Luminous Transmittance, NVG, Haze, Distortion and Angular Deviation

**[www.dtb.com](http://www.dtb.com)**



**Product Life Cycle Support Services**  
Serving Military and Commercial Markets  
Since 1950



\* Accredited Test Lab  
767.01, 767.02, 767.03

ISO 9001:2008 and AS9100C  
Registered



\* Lab Code 200422-0

1195 Church Street, Bohemia, NY 11716-5014 USA  
Please direct all inquiries to: 1-800-232-6300 • email [test@dtb.com](mailto:test@dtb.com)  
Visit our web site at: [www.dtb.com](http://www.dtb.com)

\* Please visit [www.dtb.com](http://www.dtb.com) for testing covered under our scopes of accreditation.

## First Article Testing of Transparent Armor, IAW ATPD 2352P

*A Typical First Article Test Program will Consist of the Following Tests:*

Allowable Defects, Marking, 3.2.7, 3.2.8

Tolerance, 3.2.9

Pre-Optical Tests Consisting of 4.4.1, 4.4.1.1, 4.4.2, 4.4.3, 4.4.4

Low Temperature, 4.3.1.1, Method 502.4 Storage Procedure I, -54°C, Stabilized + 24 Hours

Post-Optical Tests Consisting of 4.4.1, 4.4.1.1, 4.4.2, 4.4.3, 4.4.4

High Temperature, 4.3.1.2, Method 501.4, Storage Procedure I, 63°C, Three (3) Cycles, 24 Hours/Cycle

Humidity, 4.3.2, Five (5) 48-Hour Cycles

Post-Optical Tests Consisting of 4.4.1, 4.4.1.1, 4.4.2, 4.4.3, 4.4.4

De-Icing, 4.2.6

Post-Optical Tests Consisting of 4.4.1, 4.4.1.1, 4.4.2, 4.4.3, 4.4.4

Cleaning Spray, 4.3.7.1

Post-Optical Tests Consisting of 4.4.1, 4.4.1.1, 4.4.2, 4.4.3, 4.4.4

Chemicals, 4.3.7.2, Inner Surface, Per Table I, Five (5) Chemicals One (1) Temperature,

Test Unit One (1) Temperature

Post-Optical Tests Consisting of 4.4.1, 4.4.1.1, 4.4.2, 4.4.3, 4.4.4

Chemicals, 4.3.7.2, Outer Surface to Table II, Five (5) Chemicals Ten (10) Days)

Post-Optical Tests Consisting of 4.4.1, 4.4.1.1, 4.4.2, 4.4.3, 4.4.4

Thermal Shock, 4.3.4, Method 503.4, Procedure I, Five (5) Cycles, 36 Hours/Cycle, -31°C to +63°C

Post-Optical Tests Consisting of 4.4.1, 4.4.1.1, 4.4.2, 4.4.3, 4.4.4

Sun Exposure Weathering, 4.3.5

Post-Optical Tests Consisting of 4.4.1, 4.4.1.1, 4.4.2, 4.4.3, 4.4.4

Abrasion Test Exterior, 4.3.6.1, Three (3) Coupons

Abrasion Test Interior, 4.3.6.2, Three(3) Coupons

Rock Strike, 4.6

Scratch Resistance 4.6.2

Test Report



*A World of Engineering and Testing Under One Roof™*

\* Please visit [www.dtb.com](http://www.dtb.com) for testing covered under our scopes of accreditation.

**DAYTON T. BROWN, INC.**  
**ENGINEERING & TEST DIVISION**



[www.dtb.com](http://www.dtb.com)

**PHONE: (631) 589-6300**  
**FAX: (631) 589-3648**