

Wiper Blade Testing

For Engineers and Manufacturers of Wiper Blades

Consumers have higher levels of confidence in products backed up with independent test lab results. In addition to the following standardized tests, ARDL also offers a variety of other wiper blade services including testing to customized specifications. ARDL's wealth of experience, expertise and resources sets it apart as your single-source windshield wiper blade testing laboratory.

Coefficient of Friction

The frictional coefficients obtained are used to predict wear, chatter, squeal and energy consumption, as well as to compare various surface treatments.

Durability Testing

Durability testing to 1,500,000 cycles helps define the life prediction of your wiper blade, your wiper blade's wipe quality, and your super structure.

Initial Wipe Grade

To test the initial wipe grade, wiper blades are tested on a specially constructed wiper test buck. A glass windshield is used and is painted black on the inside to help enhance the viewing of any surface defects caused by a poorly performing wiper blade.

Ozone Testing

Ozone testing is done not only to prove a product passes ozone standards, but to provide a time line of rubber deterioration and determine if premature rubber cracking will occur.



Windshield Wiper Blade Test Bucks

Did You Know?

ARDL can supply any make or model test vehicle for your wiper blades.

Wiper Blade Testing (cont.)

Permanent Set Testing

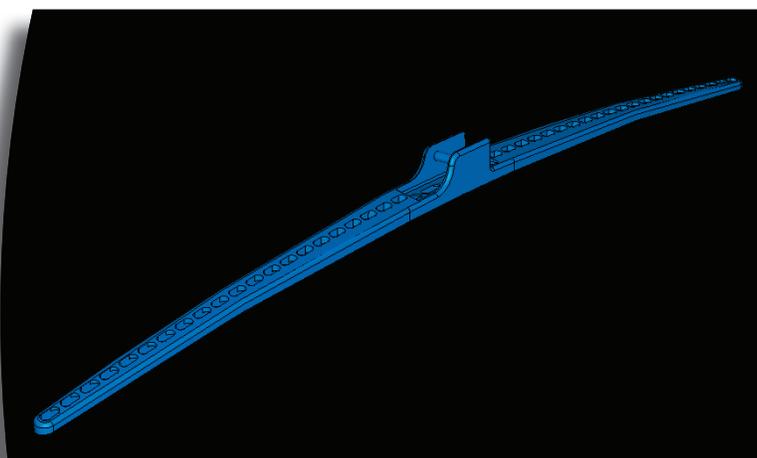
Permanent set is the first test a manufactured wiper blade must pass and is the most critical. When sitting on a windshield for an extended period of time, wiper blades can form a permanent set. Wiper blades must have a low permanent set to guarantee proper blade flipping over the life of the blade.

Salt Spray Testing

Salt spray testing is an advanced corrosion test that evaluates the durability of coatings on super structures, fastener/clip integrity, paint and rubber integrity.

Super Structure Testing

Complete wiper blade super structures can be tested at temperatures from -20°F to 120°F. ARDL's super structure testing can include simulated snow and ice slap testing, specular gloss measuring on surfaces and continuous pressure pattern testing.



3D FEA Design

ARDL is experienced in the design and analysis of wiper blade structures for optimum distribution of wiping pressure on the windshield surface. ARDL uses state-of-the-art experimental and computational mechanics tools to evaluate the best designs for our Tier 1 and OEM customers. Computerized product design and development are used to aid in decision making prior to manufacturing.

ARDL can test to your customized specifications or to the following:

SAE J903

Passenger Car Windshield Wiper System

- Wiper System Durability & Frequency Test
- Wiper System Stall Test
- Wiper System Temperature Operation Capability
 - Hot: 120°F
 - Cold: -20°F
- Comparable Wind Lift Testing 0-100 mph
 - Ozone Testing
 - Chemical Resistance

SAE J198

Trucks, Busses and Multipurpose Vehicles

- Wiper System Durability & Frequency Test
- Wiper System Stall Test
- Wiper System Temperature Operation Capability
- Ozone Testing

