



# Weathering (cont.)

## Crockmeter

A Crockmeter tests the transference of color from the surface of one material to another by either wet or dry rubbing. This test can be performed before and after weathering to detect changes after aging. In addition, the Crockmeter can also perform scuffing, wet/dry abrasion, flexing, powdering, dry-cleaning and ink abrasiveness tests.

AATCC Method 8A	AATCC Method 165	ASTM F1319	EN ISO 105, Part X12	FLTM BN 107-01
ISO 105, Part D02	JIS K 6328	JIS L 0849	JIS L 1084	SAE J 861

## UV Discoloration by UV Staining

ARDL can perform several types of UV staining to check product performance.

*UV Discoloration Test Methods Available Include But Are Not Limited To:*

ASTM D 925 Method B	GM 6086M	MS-AY 522	SAE J 1037	WSB-M3G 102-B2
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## UV Resistance by QUV

ARDL has several large capacity QUV testers to accommodate different sample sizes and odd shapes - which means you don't have to wait in line. The QUV accelerated weathering tester is a cost-effective simulation of short wavelength UV exposure. This type of testing is often used for quality control applications and is especially useful for performance comparison of different types of polymers and stabilizers. The QUV offers a condensation system for moisture simulation that does not require water spray or humidity control.

QUV lamps are electrically similar to the common cool white lamps used in general lighting but are designed to produce mostly UV light rather than visible or infrared light. In order to cover a wide range of testing needs, ARDL uses several types of UV lamps dependent on the amount of UV energy emitted and the wavelength where the spectral energy falls.

*QUV Test Methods Available Include But Are Not Limited To:*

ASTM D904	ASTM D1148	ASTM D4329	ASTM D4674	ASTM D5215
ASTM G151	ASTM G154	BS 2782 Part 5	DIN 53 384	ISO 4582
ISO 4892-3	JIS D 0205	MIL-DTL-85052	SAE J 2020	

## Fog Characteristics

Fog is a procedure performed in order to determine the tendency of interior materials to produce a light scattering film on a glass surface in a controlled environment.

## Salt Fog / Salt Spray

Salt fog is an environmental testing procedure performed on products and materials to replicate conditions of an ocean exposed atmosphere.

# Weathering (cont.)

## UV Resistance by Sunshine Carbon Arc Weather-Ometer

7KHDERFHHDWKHLJWHPBRYLGHPRRH89HSRXHDWDYHOHJWKEEHORHPVKD? DWXDOXKOLJKWIDORH25/RSH7PHFDERDFDLJKWEXFHWHWDLJKWIDWHGXDDELWLWR? materials and coatings utilizing three pairs of carbon rods that emit ultraviolet, visible and infrared radiation when an electric current is passed between them. The Carbon Arc utilizes temperature control with a black panel sensor and sample conditioning water.

*Carbon Arc Test Methods Available Include But Are Not Limited To:*

AATCC192	ASTM C1442	ASTM D750	ASTM D822
ASTM D1499	ASTM G23	ASTM G152	Federal 601, Method 7311
JIS 7753	JSM 1500G	NES 0501	NES M0135

## Ozone Resistance

ARDL has numerous chambers to test your product or material for Ozone degradation and under a variety of Ozone concentrations and temperatures.

## Dynamic Ozone Resistance

Tests for Ozone resistance under dynamic conditions.

Example of a Failed Rubber Sample After Testing in an Ozone Chamber

\_\_\_\_\_ 1.00 mm

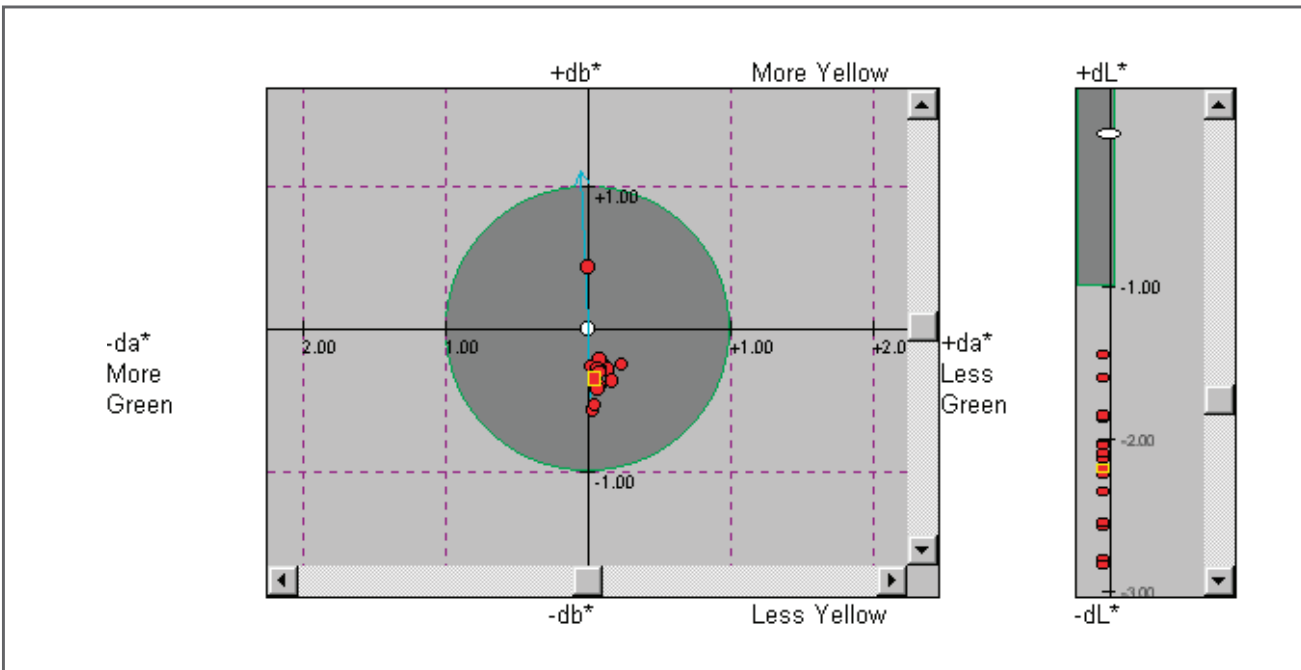
# Weathering (cont.)

Color measurement analyzes the condition of a material's surface after exposure to ultraviolet light to determine the degree of degradation or discoloration.

Color matching is a quality control method intended to check the color of end use products against federal standardized color chips.

*Color Measurement/Matching Test Methods Available Include But Are Not Limited To:*

AATCC Gray Scale For Color Change	AATCC Gray Scale For Staining	ASTM D1003
ASTM D 1925/DIN 6167	ASTM D2244	ASTM E308
ASTM E313	ASTM E1331	ASTM E1164
FED-STD-595B	ISO 105/A04	ISO 4585
SAE J 1545		



Example of Color Measurement Chart

