

RESISTANCE OF TEXTILES TO ACCELERATED AGEING BY XENON ARC**Application**

This method is used to determine the resistance of textiles to fade and degradation when exposed to high intensity Xenon arc radiation.

Apparatus Required**Xenotest 1200 U**

Source:	Heraeus Equipment Ltd.	or	W.C. Heraeus GmbH
	Unit 9 Wates Way		Instrumental Division
	Brentwood		OH Department
	Essex CM15 9TB		Postfach 1553
			D-6450 Hanau 1
			Germany

Grey Scale - for Evaluation of Change of Colour

Source: for ISO - recommendation R 105/1 scale

Beuth-Verlag GmbH
Postfach 1145
D-1000 Berlin 30
Germany

for AATCC Scale Evaluation Procedure 1

American Association of Textile Chemists and Colourists
P.O. Box 12215
Research Triangle Park NC 37709
U.S.A.

AATCC L2 and L4 Blue Wools for Equipment Calibration

Source: Same address as stated for AATCC Grey Scale.

Date	Action	Revisions
2001 04 02	Revised	Editorial – no technical changeA. Cockman
1991 06 10		

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Color Matching Device (North Sky Daylight)

As described in FLTM BI 109-01

Source: Multilight Ltd.
Kennet Side
Newbury
Berkshire RG14 5TE
England

or
Dr. A. Th. Bruck
5 Koln - Holweide
Dabringhauser Strasse 48
Germany

Tensile Testing Machine

Constant rate of traverse with recording device.

Stoll Abrasion Tester

As described in FLTM BN 108-01.

Spectrophotometer

ICS Texicon MM 9000 or equivalent.

Source: Instrumental Colour Systems Ltd.
Kennetside Park Industrial Estate
Newbury
Berkshire RG14 5TE England

Instruments used to determine color difference require capability for providing CIELAB color values utilizing illuminant D65, 10° observer data. If an instrument with diffuse geometry is used, the specular component of reflectance shall be included in the measurement.

Note: An aperture diameter smaller than 20 mm should not be used for these measurements.

Operating Conditions - Xenotest 1200

The machine is fitted with 3 x 4.5 KW Xenon burners, 64 cm long surrounded by a quartz cylinder and water cooling jacket. The effective life of the burners is 1500 hours. One new burner is fitted every 500 hours to minimize variations in radiation intensity.

The radiation intensity in the wavelength range of 300 - 830 nm is approximately 1000 W/m². (The radiation intensity and spectral energy distribution can be varied by fitting UV-filters or window glass.)

A revolving specimen rack is fitted which carries 25 specimen holders (630 x 70 mm in size) at a distance of 265 mm from the axis of the Xenon burners.

Wider specimen holders (630 x 150 mm in size) can be made and fitted in place of 2 small holders to support the larger specimens required for certain tests.