

digiLIGHT Nx™
(Light Fastness Tester)

INTRODUCTION

All dyed or printed material experience change in color when exposed to daylight for a sufficiently long period because of the action of sunlight on pigments or dyes used in them. The severity of exposure in both time and intensity of daylight determines the extent of change in color. The color fastness is denoted by the number of the Light Fastness Standard Fabric that has changed color to the same extent as the test specimen. It is expressed as the numerical Rating for Light Fastness. Paramount **digiLIGHT Nx™** is designed to evaluate the colour fastness to light.

EQUIPMENT

digiLIGHT Nx™ (Light Fastness Tester) is designed to test color fastness of textile materials to sunlight. The main unit of the instrument is completely made of M.S sheet with 500W MBTL (Mercury Blinded Tungsten Lamp) fixed at bottom to create artificial daylight and topside open. Specially designed Sample holding device is provided to expose the samples. Temperature of the inside chamber is maintained by water circulation. Sample holding device has the provision to inject the humidity solution to maintain relative humidity of the sample. Digitally control resettable hour meter is provided in the control panel to set exposure time.

SALIENT FEATURES

- Specialized equipment to evaluate colorfastness to light.
- Ergonomically designed equipment having built in water cooled mechanism.
- With water-cool sample holder to keep proper temperature.
- MBTL (Mercury Blended Tungsten Lamp) lamp used as day light source.
- Digital control panel with timer.
- Supplied with three 'A' type cells & 50 No of 'C' type cells
- With temperature & humidity control system.
- Complete with accessories-specimen holders, blue wool scale, grey scale etc.
- Supplied with calibration & inspection certificates.

digiLIGHT Nx™ is supplied complete with below accessories.

Main Unit	: 01 No.
Standard MBTL Fading Lamp (Mercury Blended Tungsten Lamp)	: 01 No.
Type 'A' Rectangular Cells	: 03 Nos.
Spring Mounted Cradles for Type 'A' Rectangular Cells	: 03 Nos.
Specimen Card to prepare sample for testing (Pack of 18 cards)	: 01 Pack.
Double Slot Mask (2/3 area exposed) – For Method-I	: 03 Nos.
Single Slot Mask (1/3 area exposed) – For Method-I	: 03 Nos.
Single Slot Mask 1/4 area exposed (For Method-II)	: 03 Nos.
Single Slot Mask 2/4 area exposed (For Method-II)	: 03 Nos.
Single Slot Mask 3/4 area exposed (For Method-II)	: 03 Nos.
Type 'C' Cylindrical Cells	: 50 Nos.
Control Fluid Filler	: 01 No.
Grey Scale for Assessing (Change in Color)	: 01 No.
Blue Wool Light Fastness Standards (Std 1 - 8)	: 01 Set
Automatic Voltage Stabilizer – 1 K.V.A	: 01 No.
Unit to Pull Sample Holder Tray from Rectangular Cells	: 03 Nos.
Flexible Tubing (Small) – For connecting Type 'A' Cells	: 06 Nos.
Flexible Tubing (Big) - For connecting the Water Circulation Unit	: 02 Nos.
Stainless Steel Clamps	: 12 Nos.
Detailed User's Manual	: 01 No.
Calibration Certificate (Traceable to NPL)	: 01 No.
Inspection & Conformance Certificate	: 01 No.

TECHNICAL DETAILS

Light Source	: 500W, MBTL Fading Lamp (Mercury Blinded Tungsten Lamp)
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Test Chamber Temperature	: Ambient to 50° C
Temperature Range Control	: By Water Circulation in Type 'A' Rectangular Cells
Humidity Control	: Inserting Saturated Solution in the type 'A' & 'C' Cells
Type 'A' Rectangular Cells	: 03 Nos. (Minimum 12 Nos. Can be accommodated)
Maximum Number of Type	: 50 Nos. C' Cylindrical Cells
Maximum Space Per Type	: 110 x 50 mm 'A' Rectangular Cells
Specimen Thickness	: Upto 15 mm
Specimen Size	: 100 x 50 mm
Maximum Number of Specimen	: 10 Nos. in the 'A' Rectangular Cells
Working Life of Lamp	: 2000 Hours
Power	: 220 Volts, Single Phase, 50 HZ, A.C. Supply.
Power Consumption	: Maximum 1 KW.
Water	: Use of Distilled Water only in the Water Circulation Unit.
Dimension of the Main Unit	: 415 (L) x 400 (W) x 565 (H)mm 16.5" (L) x 17.5" (W) x 22.5" (H) Inch.
Weight of Main Unit	: 21 Kg. (46 lbs)

RELATED STANDARDS

BS 1006 UK - TN
IS 2454 - 1985