

WIRE-WOUND DRAWDOWN BARS

A drawdown is a controlled ink application on a substrate

Benefits of Creating a Drawdown

Creating an ink drawdown is an economical method to conduct laboratory tests to determine ink coating thickness, substrate penetration, fluid compatibility, bonding to a substrate, etc. The use of wire-wound bars allows the technician to make these tests with a minimum of effort and investment.

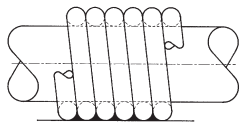
Tests Performed with Drawdowns

• Color Element Test

Each color has its own distinct appearance, based on three elements: hue, chroma and lightness. Ink drawdowns allow you to test for these important elements.

• Color Matching and Appearance Test

Test for the visual appearance of an ink using the full-color spectrum of the ink drawdown. This test helps to determine the tolerance for an acceptable visual color match, using the three-dimensional boundaries of hue, chroma and lightness.



The ink deposit amount is determined by the wire diameter

Selection of Wire-Wound Bars

We offer a selection of wire-wound bars that will allow deposits of 4-150 microns of wet ink in increments of 2µm.

Wire-wound bars with intermediate deposits of inks are available by special order.

Reference	Color Code	Diameter of Wire		Wet Ink Deposit	
		Inches	mm	Inches	µm
0	White	0.002	0.05	0.00015	4
1	Yellow	0.003	0.08	0.00025	6
2	Red	0.006	0.15	0.0005	12
3	Green	0.012	0.31	0.0010	24
4	Black	0.020	0.51	0.0015	40
5	Bone	0.025	0.64	0.0020	50
6	Orange	0.030	0.76	0.0025	60
7	Maroon	0.040	1.00	0.0030	80
8	Blue	0.050	1.27	0.0040	100
9	Brown	0.060	1.50	0.0050	120

Most Frequently Used Bars

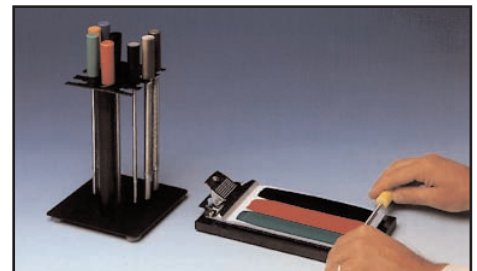
- No. 0 to simulate flexo solid printing, 160-180 lpi
- No. 1 to simulate flexo solid printing, 140 lpi
- No. 2 to simulate flexo solid printing, 60-80 lpi
- No. 2 to simulate the rotogravure printing process, 60-80lpi

Color Communication between Ink Manufacturer and Printer

- Ink manufacturers who want to simulate color matching tests being conducted by their customers with wire-wound bars using their inks, use wire-wound bar testing. The bars most commonly used by manufacturers are No. 0, 1 and 2.
- Print shops wanting to maintain quality control of the incoming inks also use wire-wound bar testing. The bars most commonly used by print shops for the approval of incoming inks are No. 0 and 1.

Benefits of Ink Drawdowns with Wire-Wound Bars

- Consistent method to control and communicate color
- Simulation of anilox engraved roller printing
- Allow the printer to make a comparison of the sample supplied by the ink manufacturer to their actual drawdown
- Simulation of the ink's printing characteristics on a flexographic press, considering the ink's color elements of hue, chroma and lightness
- Aid printers to systematically select the anilox roller
- Quality control of current inks
- Research and development of new inks using alternative materials
- Produce samples for customer approval
- Allow the implementation of a plan for continuous quality improvement
- Allow the checking of ink gloss characteristics



Small manual application device with cleaning and storage rack that allows for three liquid inks to be applied at the same time

Drawdown Table

The manual application device provides a simple yet effective means of applying coatings on many different substrates, including paper, carton, plastic film, glass and wood. Two or more coatings can be applied side by side in one single operation, making it an ideal product comparison system.