



DAVIS › STANDARD®

Where your ideas take shape.

Advance Program

Liquid Coating Facility-Lab Line 2

Overview

Consider the possibilities. Let our Liquid Coating facility assist you to:

Develop new products before you go to the expense of trials on your production equipment.

Explore new processes and markets.

Consider new equipment designs that will drive flexibility and efficiency into your operations

Gain early entry into a market by scaling up with our equipment

Reduce your switching costs as you look for lower cost resins

Features

These are a few of the many products capable of being tested in our Liquid Coating Laboratory:

- Window film
- Fire retardant insulation
- Battery
- Ink-jet paper
- Tape
- Label
- Dryer towels
- Medical patches
- Graphite composite
- Sand paper
- Roofing
- Facial wash cloths
- Thermal paper
- Thermal transfer ribbons
- Carbonless
- Masking tape
- Protective wrap
- Fluorescent paper
- Metalized paper
- Printing plates
- Filament tape
- Phenolics
- Lighted signs
- Road signs
- Siliconized liner
- Stamps

Liquid Coating Facility-Lab Line 2

Our Liquid Coating Lab is the perfect place to test your formulations, determine methodologies, perfect techniques, develop new products, evaluate equipment and take your new products to the next level. Coating Lab Line 2 offers the following for your testing needs:

- Single position unwind: features manual side-lay and squaring, air cooled, pneumatic operated disc brakes
- Corona treater: single side treatment, maximum power 7.5 kw.
- Pull rolls: a nip on the corona treater provides tension isolation
- Universal coater: a cartridge-style machine that can be configured into multiple coater configurations through the use of quick change roll out carts
- Ultraviolet curing station: allows for curing via photo initiation. Nitrogen purge available for air sensitive chemistries
- Air flotation dryer: the 15 foot (4.6 m) flotation dryer is composed of (3) five foot (1.5 m) zones. Each zone has independent air flow and temperature control. Direct fired natural gas burners provide the heat source. Air foil and pressure pad nozzle configurations are available. The dryer is designed for solvent and aqueous coatings. Critical process parameters such as an air temperature, air flow, solvent concentration, and web temperature are monitored and recorded in our Integrator PRO supervisory control system
- AC vector drives
- Multifunctional cooling section with laminating nip: used to cool the web after the dryer and to laminate (or interleave) a second web from an auxiliary single position unwind, capable of 100 PLI
- Auxiliary single position unwind: features manual side-lay and squaring, air cooled pneumatic operated disc brake. Mounted on a movable base so it may also be positioned for wet-bond laminations
- Single position winder: has manual side-lay mechanism, lay-on and transducer roll
- Integrator PRO process control system: supervisory control system provides monitoring and data logging of all critical operating parameters
- Coating techniques: many configurations available including; air knife, doctor blade, rod, variations of offset gravure, variations of reverse gravure, variations of direct gravure, slot die, curtain die, contact die, reverse roll variations, BTR, 5 roll, 2 roll smooth, 3 roll smooth, hot melt (gravure, slot die, reverse roll), saturators, wet on wet, dip and squeeze, and many more

Testing Equipment

- Stereoscopic type microscope, power 7 - 10
- Black light
- GES Mod. PT830SS 30"x24" (76mmx61mm) platform scale 1500 lb. 680.3 kg) capacity
- GES Mod. HP-20K 13.5"x15" (76mm x 61mm) platform scale 21 lb. (680.3 kg) capacity
- GES Mod. GP-12K 13.5"x15" (76mm x 61mm) platform scale 12 kg. 26.5 lb.) capacity
- Hercules high shear viscometer - mod. ET-24-6
- Brookfield mod. RVDVII+ viscometer
- Brookfield mod. RVTD viscometer
- Zahn cups (1-5)
- Oxford Lab-X 3000
- Ohaus MB200 solids tester
- Computrac MX100 moisture analyzer
- Precision convection oven mod. STM80
- Oakton PH10 series PH/MV/8C meter
- 874 thermocouple thermometer 1208 F - 2008 F
- Quincy lab mod. 20 GC lab oven
- Hydraulic shop press P/N 1884 - 10 ton
- Ohaus champ bench scale - 250 lb. capacity
- PARO tester - paper, foil, & film reel hardness
- Strobe light
- Brightness - gloss meter
- Sheffield smoothness tester

Line Specifications

Operating Speed Range	30 to 3000 FPM (10 to 900 mpm)
Web Width	18 inches (460 mm)
Tension	12 to 40 lbs. (6 to 70 kg)
Unwind Roll Diameter	Max. 36 inches (Max. 900 mm)
Unwind Core Diameter	3 inches, 6 inches ID (75 mm, 150 mm ID)

Auxiliary Unwind Roll Diameter	Max. 30 inches (Max. 750 mm)
Auxiliary Unwind Core Diameter	3 inches, 6 inches ID (75 mm, 150 mm ID)
Winder Roll Diameter	Max. 36 inches (Max. 900 mm)
Winder Core Diameter	3 inches, 6 inches ID (75 mm, 150 mm ID)