

ON-SITE AMENITIES

Prototype, pilot, and production scale toll coating facilities for depositing specialized materials onto a variety of substrates—paper, polymers and metal foils that range in thicknesses from 5 to 500 μm

Energy storage testing and validation of commercially-viable products

Pilot tools that support the development of a variety of custom thin films—including next generation thin film solar, battery electrodes, fuel cell membranes and ultra-capacitor electrodes

World-class analytical services staff with expertise in coating, drying, web conveyance, converting and materials formulation—with extended hours of availability to all tenants

Environmental chambers for accelerated testing under various atmospheric conditions

Light exposure chambers available to expose materials to the light intensity desired



Eastman Business Park's comprehensive suite of test, validation, prototyping, and pilot manufacturing tools are specifically designed to help accelerate innovation out of the lab to high volume manufacturing in the energy storage sector. The Park's facilities, capabilities and amenities are uniquely positioned to support all energy-related technologies requiring thin film coated electrodes and other components, from batteries to ultra-capacitors to fuel cells to photovoltaics and beyond.

KEY DEPOSITION CAPABILITIES

Eastman Business Park's coating facilities—at several scales—can lead to a high volume, efficient, cost effective process. This, combined with the state-of-art testing facilities at the BEST Test and Commercialization Center makes Eastman Business Park the ideal location for the development of critical, next generation battery and energy storage technologies.

Gravure coating of continuous layers and patterns

Flexographic printing of patterns

Solvent and aqueous solutions

Slot die coating of continuous layers and stripes

High temperature and UV curing

Wet and dry lamination

Extrusion/melt cast processes for thermoplastics

Calendaring

Off-line slitting and chopping



SMALL-SCALE COATING

Designed for material development and optimization

Solution quantities of 500 mL and up (aqueous and solvent)

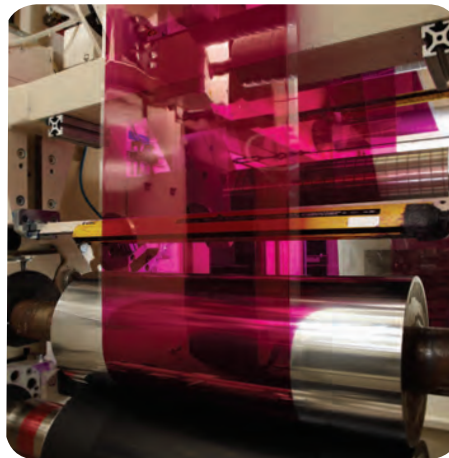
Solution viscosities up to 10,000 cps

Slot die and gravure coating methods available

Wet and dry lamination capability

5-50 fpm on webs up to 10" wide and 5-500 μ m thick

Thermal and UV curing options



INTERMEDIATE-SCALE COATING

Designed for process development and optimization and product prototyping

Accredited and available for manufacturing

Solution quantities of 3 L and up

Solution viscosities up to 10,000 cps

Slot die, gravure, flexo, slide, rod/blade, and dip coating methods available

Wet and dry lamination capability

5-5000 fpm on webs up to 17" wide and 5-500 μ m thick

Thermal and UV curing options



HIGH-VOLUME COATING

8 station in-line coating machine

40' of air impinged drying after each coating station

Web speeds up to 1000 fpm at web widths up to 63"

Web inverters to enable coating on both sides of the substrate in a single pass

Large volume solution delivery capability