

## Scientific Product and Process Design

Marshall Plastic Film takes a sophisticated approach to the development, specification and manufacture of films and liners for the healthcare industry. The result is consistent, high quality products that meet the demanding needs of their customers.

### Healthcare Mentality - Attention to Detail

- ISO 9001:2008 Certified
- Drug Master File 8686
- Quality systems-computer processes that monitor and control: full traceability; incoming QA; material certifications; retain samples
- In-house testing lab-Full physical testing capabilities including FT-IR, DSC, tensile, seal and burst strength
- Responsive R&D-product development to fit specific customer needs
- Technical service and support
- FDA approved raw materials
- Sole supplier to many top pharmaceutical companies

### Applications

For the safe loading and storage of fine powder chemicals. Ideal as a liner for drums or FIBCs for the storage and transportation of powders and tablets.

- Bag liners for bulk containers, antistatic available
- Specialty films to convert to
- Pouches
- Laminate to foil
- Line trays



### Meet Regulatory Requirements By:

- Facilitating Stability Testing
- Eliminate Risk in Packaging
- USP, EU, JP approved materials

*At Left: 100% web scanning by state-of-the-art vision equipment. Entire width of film from beginning to end. Scanned for non-conformities and each is tagged for removal.*



# Pharmaceutical Grade Film and Bags

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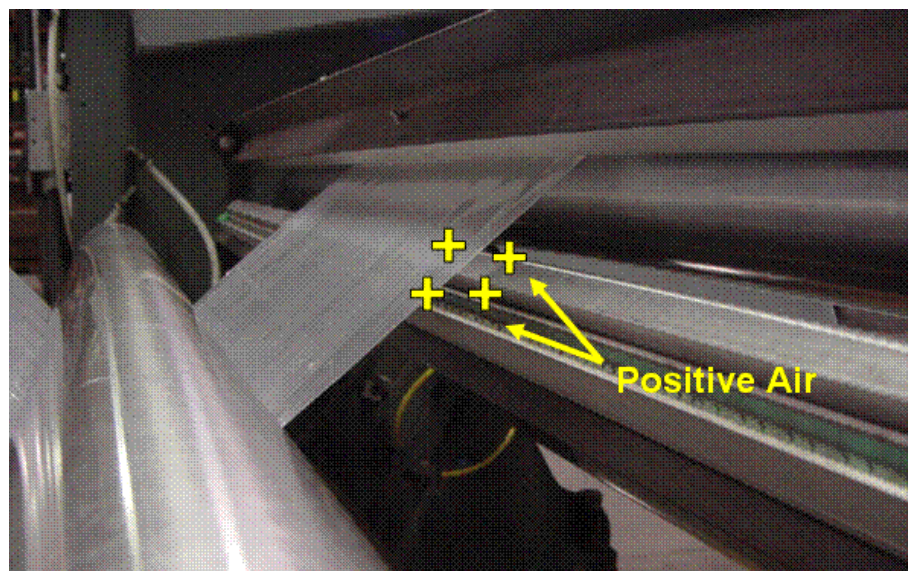
904 East Allegan Avenue  
 Martin, MI 49070-0125  
 866-349-6104  
 MarshallPlastic.com

### Mechanical Properties (Typical)

Item	Dart	Tensile Break	
		MD(PSI)	TD(PSI)
Resin	gm/mil		
	ASTM D 1709	ASTM D 882	
LDPE	50-100	1400-3000	1050-2750
LLDPE	75-1258	1420-3000	1100-4100
HAO	1502-250	4500-6000	3200-5000

### Heat Sealing

Temperature	250 - 375°
Time	.25 - 3.5 seconds
Pressure	30 - 60 psi (ASTM D 882)



Above: 100% web cleaning by state-of-the-art ionization equipment. Through this process, any particles adhering to the web are removed.

### Customers with Active Authorization

Pfizer Inc.  
 7171 Portage Rd.  
 Kalamazoo, MI 49001

Paddock Laboratories, Inc.  
 3940 Quebec Ave. North  
 Minneapolis, MN 55427

Eli Lilly  
 1280 S. Dakota Bldg. #82  
 Indianapolis, IN 46225

Advanced Scientifics, Inc.  
 163 Research Lane  
 Millersburg, PA 17061

Lilly ICOS LLC  
 Lilly Corporate Center  
 Indianapolis, IN 46285

ILC Dover  
 One Moonwalker Rd.  
 Frederica, DE 19946-2080

AstraZeneca Pharmaceuticals LP  
 1800 Concord Pike, PO Box 15437  
 Wilmington, DE 19850-5437

JRH Biosciences  
 13804 W 107th St.  
 Lenexa, KS 66215

Sanofi - Aventis Pharmaceuticals  
 10236 Marion Park Drive  
 Kansas City, MO 64134-0720

Charter Medical  
 3948-A Westpoint Blvd.  
 Winston-Salem, NC 27103