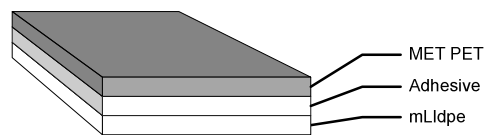


Product Name: PP M4000C

Description: Protect-all's PP M4000C is an economical packaging structure using metalized bi-axially oriented polyester laminated to a durable sealant layer. With low activation temperature, good handling properties, heat stability, and barrier properties this film is ideal for snacks, confection, nuts and Frac Pack applications. **Evaluation and fitness-for-use is the sole responsibility of the customer.**



Protect-all offers a full line of laminated packaging structures for your standard and hard to hold applications. Choose from our stock products, or ask us to custom engineer a film structure for your specific requirements.

Features:

- Construction: **48g. MET PET / Adhesive / 3.5 mil mLLDPE**
- Good barrier properties.
- Sealant layer has high slip for excellent FFS processing and handling
- Good heat stability.
- Low activation temperature.
- The PET is in compliance for direct contact with food under FDA 21 CFR 177.1630
- The sealant is in compliance for direct contact with food under FDA 21 CFR 177.1520

Typical Properties

Property	UOM	Typical Value	Test Method
Average Thickness	mil	4.1	ASTM D2103
Thickness Tolerance	+/- %	10%	
Unit Weight	lbs/ream	61.8	TAPPI T410
Yield	in ² /lb	6,990	ASTM D4321
Haze		NA	ASTM D1003
Surface Tension (adhesive side)	dyne	NA	ASTM D2578
Tensile Strength		NA	ASTM D882
Elongation MD		NA	ASTM D882
Elongation TD		NA	ASTM D882
WVTR (90% RH)	g/100 in ² /day	<0.06	ASTM F1249
OTR (0% RH)	cc/100 in ² /day	<0.08	ASTM D3985
COF	sealant to self	<0.2	ASTM D1894
Application Temperature	°F	300 - 350	
Seal Strength (to self at 300°F, 70 PSI, 1.5 seconds)	g/in	>4,000 grams / in	ASTM F88
Adhesion (Met Pet to mLLDPE -90° peel)	g/in	>300 grams / in	
Shelf Life		1 Year	
Storage Conditions		70°F (20°C) - 50% humidity	
Chemical Resistance		NA	

Contact your Protect-all, Inc. representative about custom structures or unique applications.

The information contained herein is based upon data collected by Protect-All, Inc. and to the best of our knowledge, is believed to be correct. No guarantees or warranty, express or implied, is made with respect to the information provided. **This information is provided only as a guide, and it is the customer's responsibility to evaluate the suitability for intended use prior to using this product.** Protect-all, Inc. assumes no responsibility for the results of the use of products and processes described. Protect-All, Inc. reserves the right to modify product properties or composition at any time without notice.