

# HF106

## Anti-fog Film



TRANSPARENT BOPP FILM

**DESCRIPTION :**

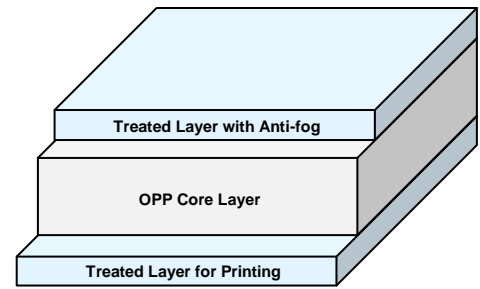
**Gulf Pack HF106** is a transparent heat sealable film, both sides treated, one side with anti-fog functionality.

**PRODUCT FEATURES :**

Excellent anti-fog properties  
 Good optical properties  
 High seal strength and good hot tack  
 Good transparency to display packed fresh foods

**APPLICATIONS :**

Widely used in packaging of fresh fruits, meat, vegetables, bread, etc.  
 Useful for HFFS and VFFS machines  
 Rotogravure and flexographic printing



PROPERTIES		UNIT	TYPICAL VALUES					TEST METHOD.
PHYSICAL	Thickness	Microns	20	25	30	35	50	ASTM D 374
		Gauge	80	100	120	140	200	
	Grammage	g/m <sup>2</sup>	18.20	22.75	27.30	31.85	45.5	*GPIM
		lbs/ream	11.2	14.0	16.8	19.6	28.00	
	Yield	m <sup>2</sup> /kg	54.95	43.96	36.63	31.40	22	
		in <sup>2</sup> /lb	38,700	31,000	25,800	22,100	15,468	
Coefficient of Friction (Film/Film)			0.35					ASTM D 1894
Surface Tension (Treated Side)		dynes/cm	38					ASTM D 2578
OPTICAL	Haze	%	2.5					ASTM D 1003
	Gloss (45°)		85					ASTM D 2457
MECHANICAL	Tensile Strength at Break	MD	15					ASTM D 882
		TD	28					
		MD	21,330					
		TD	39,816					
Elongation at Break	MD	170					ASTM D 882	
	TD	50						
THERMAL	Thermal Shrinkage	MD TD	< 4.0 < 2.0					GPIM (120°C (248°F), 5 min, air)
	Heat Seal Range	°C (°F)	120 – 140 (248 – 284)					GPIM
	Heat Seal Strength (Film/Film)	g/15mm	275					GPIM (130°C, 1bar, 1sec)
lb/0.59in		0.60					GPIM (266°F, 14.5psi, 1 sec)	
BARRIER	Water Vapor Permeability (W.V.T.R.)	g/m <sup>2</sup> /24h	7.1	6.2	5.3	4.4	3.4	ASTM F 1249 (38°C / 90% RH)
		g/100in <sup>2</sup> /24h	0.46	0.40	0.34	0.28	0.19	
	Oxygen Transmission Rate (O.T.R.)	cc/m <sup>2</sup> /24h	2500	2000	1600	1400	1220	ASTM D 3985 (23°C / 0% RH)
		cc/in <sup>2</sup> /24h	160	130	100	90	88	

\*GPIM – Gulf Pack Internal Method

\*MD – Machine Direction

\*TD – Transverse Direction

**Gulf Pack HF106** films comply with the USA FDA Code of Federal Regulations CFR21 section 177.1520 (c) 1.1 and are suitable for use in packaging, carrying and transporting foodstuffs.

The information contained in this technical leaflet illustrates typical values only and are to the best of our knowledge. Since the conditions under which our films may be used are beyond our control, such values are declared without warranty or guarantee.

Bi-axially oriented polypropylene films age with time and will exhibit deterioration of some properties if not stored in a suitable environment at a temperature 30°C or below. We strongly advise our customers to use recommended storage conditions and consume products before 6 months from date of production in our plant.

**Gulf Pack HF106** standard surface treatment location is on both sides (B); other treatment preference can be arranged upon agreement with the sales representative before order processing.

Detailed advice regarding other specific applications of **Gulf Pack HF106** and other films in the Gulf Pack range is available upon request.