# **HF106**

## **Anti-fog Film**



Last update: 01-Oct-2014

#### **DESCRIPTION:**

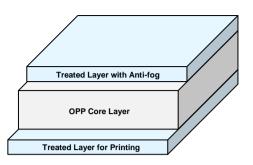
**Gulf Pack HF106** is a transparent heat sealable film, both sides treated, one side with anti-fog functionality.

## **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	Thirtenan	Microns	20	25	30	35	50	ASTM D 374
	Thickness	Gauge	80	100	120	140	200	
	0	g/m²	18.20	22.75	27.30	31.85	45.5	*GPIM
	Grammage	lbs/ream	11.2	14.0	16.8	19.6	28.00	
	Yield	m²/kg	54.95	43.96	36.63	31.40	22	
	rielu	in²/lb	38,700	31,000	25,800	22,100	15,468	
	Coefficient of Friction (Film/F	ilm)	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 kg/mm²		15				
		TD Kg/IIIII-	28					ASTM D 882
		MD psi	21,330					
		TD psi	39,816					
	Flongation at Break —	MD %	170					ASTM D 882
		TD //	50					
THERMAL	Thermal Shrinkage	MD %	< 4.0					GPIM (120°C (248°F),
		TD /º	< 2.0					(120°C (248°F), 5 min, air)
	Heat Seal Range	120 – 140 (248 – 284)					GPIM	
	Heat Seal Strength (Film/Fil	g/15mm	275					GPIM (130°C, 1bar, 1sec)
	Heat Seal Strength (Film/Fil	lb/0.59in	0.60					GPIM (266°F, 14.5psi, 1 sec)
BARRIER	Water Vapor Permeability	g/m²/24h	7.1	6.2	5.3	4.4	3.4	ASTM F 1249 (38°C / 90% RH)
	(W.V.T.R.)	g/100in²/24h	0.46	0.40	0.34	0.28	0.19	
	Oxygen Transmission Rate	cc/m <sup>2</sup> /24h	2500	2000	1600	1400	1220	ASTM D 3985 (23°C / 0% RH)
	(O.T.R.)	cc/in²/24h	160	130	100	90	88	

<sup>\*</sup> GPIM – Gulf Pack Internal Method

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.

<sup>\*</sup>MD – Machine Direction

<sup>\*</sup>TD – Transverse Direction