

# HF122

## Anti-fog Film



**DESCRIPTION :**

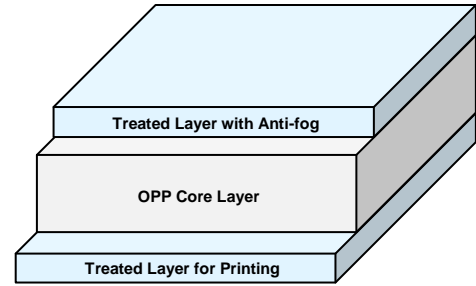
**Gulf Pack HF122** is a transparent heat sealable film, both sides treated, one side with anti-fog functionality.

**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.  
 Rotogravure and flexographic printing  
 HFFS and VFFS packaging



PROPERTIES		UNIT	TYPICAL VALUES					TEST METHOD.	
PHYSICAL	Thickness	Microns	20	25	30	35	40	ASTM D 374	
		Gauge	80	100	120	140	160		
	Grammage	g/m <sup>2</sup>	18.20	22.75	27.30	31.85	36.4	*GPIM	
		lbs/ream	11.2	14.0	16.8	19.6	22.44		
	Yield	m <sup>2</sup> /kg	54.95	43.96	36.63	31.40	27.47		
		in <sup>2</sup> /lb	38,700	31,000	25,800	22,100	19,390		
Coefficient of Friction (Film/Film)			0.25					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	< 4.0					GPIM (120°C (248°F), 5 min, air)	
		TD	< 2.0						
	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	3.8	ASTM F 1249 (38°C / 90% RH)	
		g/100in <sup>2</sup> /24h	0.46	0.40	0.34	0.28	0.25		
	Oxygen Transmission Rate (O.T.R.)	cc/m <sup>2</sup> /24h	2500	2000	1600	1400	1200	ASTM D 3985 (23°C / 0% RH)	
		cc/in <sup>2</sup> /24h	160	130	100	90	80		

\* GPIM – Gulf Pack Internal Method

\*MD – Machine Direction

\*TD – Transverse Direction

**Gulf Pack HF122** films comply with the EU Regulation 10/2011/EC 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 HF122** 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 HF122** and other films in the Gulf Pack range is available upon request.