

# HS(ATF)

Anti-fog Film



**DESCRIPTION :**

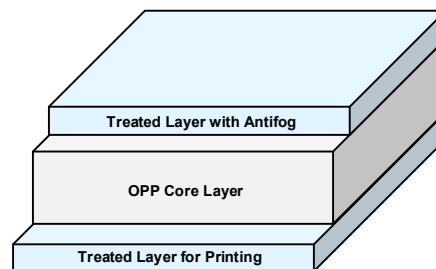
Gulf Pack HS(ATF) is a bi-axially oriented heat sealable polypropylene film, both side heat sealable with antifog functionality.

**PRODUCT FEATURES :**

Excellent antifog 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 meat, vegetables, bread, etc.  
 Useful for HFFS and VFFS machines.



PROPERTIES		UNIT	TYPICAL VALUES					TEST METHOD.
PHYSICAL	Thickness	Microns	18	20	25	30	35	ASTM D 374
		Gauge	72	80	100	120	140	
	Grammage	g/m <sup>2</sup>	16.38	18.20	22.75	27.30	31.85	*GPIM
		lbs/ream	10.1	11.2	14.0	16.8	19.6	
	Yield	m <sup>2</sup> /kg	61.05	54.95	43.96	36.63	31.40	
		in <sup>2</sup> /lb	43,000	38,700	31,000	25,800	22,100	
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	15					ASTM D 882
		TD	28					
THERMAL	Thermal Shrinkage	MD	< 4.0					GPIM (120°C (248°F), 5 min, air)
		TD	< 2.0					
	Heat Seal Range	°C (°F)	105 – 140 (221 – 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)	

\* GPIM – Gulf Pack Internal Method      \*MD – Machine Direction      \*TD – Transversal Direction

Gulf Pack HS(ATF) films comply with the EU Regulation 10/2011/CE and USA FDA Code of federal regulations CFR21 section 177.1520 (c) 1.1 and is suitable for use in packaging, transporting or holding foods.

The information contained in this technical leaflet is to the best of our knowledge & experience. Since the conditions under which our products maybe used are beyond our control, recommendations are made without warranty or guarantee.

Bi-axially oriented polypropylene film aged with time and will exhibit deterioration of properties if it is not stored in a dry environment at a temperature 30°C or below. We highly recommend our customer to use recommended storage condition and consume product before 6 months from date of production in our plant.

Detail advice regarding other specific application of **Gulf Pack HS(ATF)** and other films in the Gulf Pack range is available upon request.