UmaPET COMH

Polyethylene Terephthalate

Ester Industries Ltd.

Message:

KEY FEATURES
UmaPET COMH is high barrier metallized film, metallized on plain surface with plasma other side corona treated. It exhibits good barrier properties along with good metal to film bond strength/adhesion.
It has excellent mechanical properties, flex crack resistance and excellent gloss.
APPLICATIONS
UmaPET COMH is used as sandwich barrier layer in flexible packaging applications which require good barrier and good bond strength in laminates.
Typical usage as barrier layer in laminates for confectionary, milk powder, cereals, snacks, chips, extruded foods, tea etc.

General Information	
Features	Barrier Resin Bondability Good Adhesion Good Crack Resistance High Gloss Metallizable
Uses	Film Laminates Packaging
Forms	Film

Physical	Nominal Value	Unit	Test Method
Molding Shrinkage			ASTM D1204
Flow : 150°C, 30 min, 0.0100 mm	2.5	%	
Flow : 150°C, 30 min, 0.0120 mm	2.5	%	
Flow : 150°C, 30 min, 0.0150 mm	2.5	%	
Flow : 150°C, 30 min, 0.0230 mm	2.5	%	
Across Flow : 150°C, 30 min, 0.0100 mm	0.40	%	
Across Flow : 150°C, 30 min, 0.0120 mm	0.40	%	
Across Flow : 150°C, 30 min, 0.0150 mm	0.40	%	
Across Flow : 150°C, 30 min, 0.0230 mm	0.40	%	
Surface Tension			ASTM D2578
Corona Side : 10.0 µm	54	mN/m	
Corona Side : 12.0 µm	54	mN/m	
Corona Side : 15.0 µm	54	mN/m	
Corona Side : 23.0 µm	54	mN/m	
Metallized side : 10.0 µm	56	mN/m	
Metallized side : 12.0 µm	56	mN/m	

Metallized side : 15.0 µm	56	mN/m	
Metallized side : 23.0 µm	56	mN/m	
Yield			Internal Method
10.0 µm	71.4	m^2/kg	
12.0 µm	59.5	m^2/kg	
15.0 µm	47.6	m^2/kg	
23.0 µm	31.0	m^2/kg	
Optical Density			Internal Method
10.0 µm	-2.4 to 7.6	%	
12.0 µm	-2.4 to 7.6	%	
15.0 µm	-2.4 to 7.6	%	
23.0 µm	-2.4 to 7.6	%	

Films	Nominal Value	Unit	Test Method
	10 12 15		
Film Thickness - Tested	23	µm	
Film Thickness - Recommended / Available	10, 12, 15, 23 µm		
Tensile Strength			ASTM D882
MD : Break, 10 µm	206	MPa	
MD : Break, 12 µm	206	MPa	
MD : Break, 15 µm	186	MPa	
MD : Break, 23 µm	186	MPa	
TD : Break, 10 µm	216	MPa	
TD : Break, 12 µm	216	MPa	
TD : Break, 15 µm	206	MPa	
TD : Break, 23 µm	206	MPa	
Tensile Elongation			ASTM D882
MD : Break, 10 µm	100	%	
MD : Break, 12 µm	100	%	
MD : Break, 15 µm	100	%	
MD : Break, 23 µm	100	%	
TD : Break, 10 µm	90	%	
TD : Break, 12 µm	90	%	
TD : Break, 15 µm	90	%	

TD : Break, 23 µm	90	%	
Oxygen Permeability [1]			ASTM D3985
23°C, 10 µm	0.800	$cm^3/m^2/24$ hr	
23°C, 12 µm	0.700	$cm^3/m^2/24$ hr	
23°C, 15 µm	0.700	$cm^3/m^2/24$ hr	
23°C, 23 µm	0.700	$cm^3/m^2/24$ hr	
Water Vapor Transmission			ASTM F1249
-- [2]	0.40	$g/m^2/24$ hr	
-- [3]	0.40	$g/m^2/24$ hr	
-- [4]	0.50	$g/m^2/24$ hr	
-- [5]	0.40	$g/m^2/24$ hr	

NOTE	
1.	0%RH
2.	37.8°C, 90%RH, 15 µm
3.	37.8°C, 90%RH, 23 µm
4.	37.8°C, 90%RH, 10 µm
5.	37.8°C, 90%RH, 12 µm

Recommended distributors for this material

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