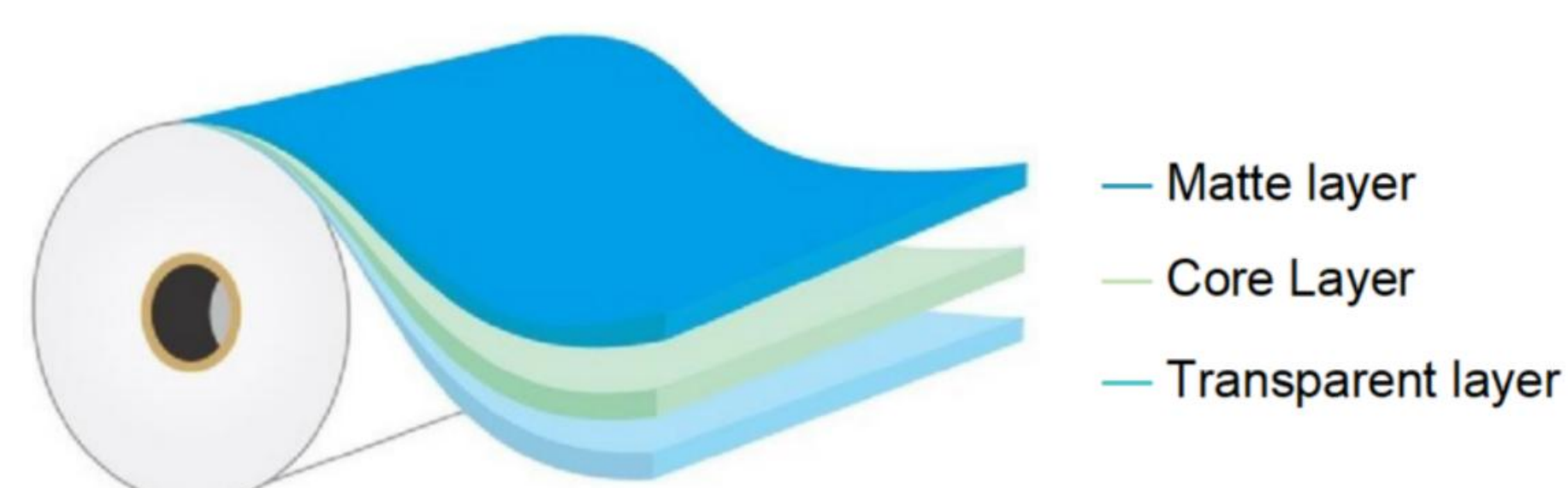


# Matte Printing Packaging Film

## 21D 20 $\mu$ m

### Technical Data

#### Structure



#### Description

Matte film with a single-side matte finish and an inner glossy side that is corona treated for enhanced adhesion.

#### Application

Used for composite bag production following general printing, suitable for various bag types including three-side seal, quad-seal, and stand-up pouches.

Properties	Ref.	Units	ASTM #/ Test Method	21D				
<b>Physical Data</b>								
Average Thickness		micron	D-374-C	18	20	25	30	40
		gauge		71	79	98	118	157
		mils		0.7	0.8	1.0	1.2	1.6
Thickness Variation		%( $\pm$ )		3				
Density		g/cc		0.840				
Average Substance		g/m		16.3	18.1	22.6	27.2	36.2
Surface tension(min)		dynes/cm	D-2578	$\geq 38$				
Kinetic COF	UT-UT		D-1894	0.25-0.35				
Yield		m <sup>2</sup> /Kg	D-4321	61.4	55.2	44.2	36.8	27.6
		in <sup>2</sup> /lb	D-4321	43160	38844	31075	25896	19422
<b>Optical Data</b>								
Gloss(45)		gardner	D-2457	$\leq 11$				
Haze		%	D-1003	$\geq 75$				
<b>Mechanical Data</b>								
Tensile Strength	MD	kg/cm	D-882	110-150				
	TD			210-300				
Elongation at break	MD	%	D-882	140-180				
	TD			50-65				
<b>Thermal Data</b>								
Shrinkage (120 $^{\circ}$ C/248F,5 min.)	MD	%	D-1204	2.0-4.5				
	TD			1.0-2.0				
Seal Initiation Temp	UT	$^{\circ}$ C/F	CTM	$\geq 130$				
SIT Variation( $\pm$ )		$^{\circ}$ C/F	CTM	$> 5$				
Heat Seal Strength	UT	g/15mm	CTM	$> 205$				
HotTack Strength		g/15mm	@125 $^{\circ}$ C	330				350
			@257 $^{\circ}$ F					
<b>Barrier Data</b>								
MVTR(38 $^{\circ}$ C,90%RH)		g/(m <sup>2</sup> ·day)	F-1249	5.0~6.7	3.0~4.8	2.0~3.1		
MVTR(10B,90%RH)		g/100i/day		0.32~0.43	0.19~0.31	0.13~0.20		

The values given in the above table are typical performance data for reference only.  
If you have special requirements for product performance indexes, please communicate with business manager.

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