

## ZDF-06 HIGH PERFORMANCE SHRINK FILM TECHNICAL

TEST ITEM	UNIT	ASTM TEST	TYPICAL VALUES				
			12um	15um	19um	25um	
<b>THICKNESS</b>							
<b>TENSILE</b>							
Tensile Strength(MD)	N/mm <sup>2</sup>	D882	75	75	68	65	
Tensile Strength(TD)			65	65	63	58	
Elongation(MD)	%		95	100	93	90	
Elongation(TD)			85	93	85	78	
<b>TEAR</b>							
MD	g	D1922	14,5	16,5	24,0	30,5	
TD			15,0	16,0	23,0	32,0	
<b>SEAL STRENGTH</b>							
MD\Hot Wire Seal	N/mm	F88	0,68	0,75	0,95	1,35	
TD\Hot Wire Seal			0,65	0,72	0,91	1,25	
<b>COF(Film To Film)</b>							
Static	-	D1894	0,21	0,17	0,16	0,22	
Dynamic			0,22	0,19	0,18	0,23	
Static(HotSlip)@60°C			0,31	0,28	0,26	0,24	
<b>OPTICS</b>							
Haze		D1003	3,5	3,9	4,3	4,5	
Clarity		D1746	97,5	98,0	97,0	95,0	
Gloss @ 45Deg		D2457	82,0	84,0	84,0	80,5	
<b>BARRIER</b>							
Oxygen Transmission	cc/m <sup>2</sup> /day	D3985	12900	11700	9600	6500	
Water Vapor transmission Rate	gm/m <sup>2</sup> /day	F1249	52	45	38	31	
<b>SHINKAGE PROPERTIES</b>			<b>MD</b>	<b>TD</b>	<b>MD</b>	<b>TD</b>	
Free Shinkage	80°C	%	D2732	17	20	15	17
	90°C			25	32	22	28
	100°C			43	47	42	47
	110°C			55	56	54	55
	120°C			63	64	62	62
	130°C			68	67	67	65
Shink Tension	90°C	Mpa	D2838	1,90	2,20	1,95	2,10
	100°C			2,25	2,40	2,40	2,50
	110°C			2,55	2,65	2,75	2,85
	120°C			2,45	2,50	2,60	2,60

Note: This information represents our best judgment on the work done, but the company assumes no liability whatsoever in connection with the use of information or findings contained herein.