

Note : This is only for nike. / Some information is confidential.

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01 Hotmelt film development History

3 application example for film series

			ASSEMS Hotmelt adhesive film									
	Laminating Materials	FA-1000	FA-2000	FA-3000	FA-4000	FA-6000	FA-7000					
	EVA	0	0	0	0	х	Х					
	Cotton	0	0	0	0	0	0					
/	Steel	Х	Х	0	0	Х	Х					
	ΡΕ,ΤΡΟ	0	0	0	0	Х	Х					
	PU,TPU,PET	Х	Х	Х	0	0	0					
	NYLON	Х	Х	0	Х	Х	Х					
List of assents	Lining sponge / Ortholite foam	х	х	х	0	0	0					
	Polyester textile	0	0	0	0	0	0					
							6					











02 2nd factory information







The principle is similar to wire clothing.



02 2nd factory information

4 Expansion plan





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03 Hotmelt film development History

2 Coating yarn denier & diameter		Core Yarn	Denier of Coated Yarn +/- 5%	Diameter of coated yarn(µm) +/- 10%	Available Weaving
		70D	Testing	Testing	Tricot
and the set		100D	Testing	Testing	Tricot
		125D	800D	320	Tricot, double raschel, Circular
	MELSA	150D	900D	350	Tricot, double raschel, Circular
 Ref. of Deneir : Nike Test G94 (Denier Measurement for Yarns and Threads) 		250D	1350D	400	Plane weave, Circular
 Diameter : use digital Microscope(65x or 330x) 		420D	1900D	500	Plane weave

<Notes>

Different of denier range is because of pigment gravity.

(the weight of each color coated yarn is slight different.)

We continue to research & develop thinner coated yarn as well as even coated yarn





04 Internal test report

1 Physical property_Comparison of Based polymer

Item	MELS Poly O	SA_ Ilefin	ME Poly	LSA_ Ester	ME Thermo. Pe	LSA_ olyUrethane	Remark
Thickness	0.40	09	0.	372	0.	346	
standard deviation of Thickness	0.021/	0.034	0.017	/0.031	0.011	/0.029	/spec (avg thick*8.5% > Stdva)
1 Cross-section							
(microscopy x300)	2 2 2				(F De		
Eccentricity (circle=0 < e <1)	0.31	0	0.16	0.21	0.32	0.22	0.35 > sqrt(1-Φmin^2/Φmax^2)
Tensile / Elongation (kg / %)	1.310 / 16.7 976		1.378	1.378 / 17.7		/ 15.6	
Denier			1,0	021	9	59	
	Item Thickness standard deviation of Thickness Of Thickness (nicroscopy x300) 2 Eccentricity (circle=0 < e <1)	Item MELS Poly C Thickness 0.44 standard deviation of Thickness 0.021/ Cross-section (microscopy x300) 1 2	Item MELSA_Poly Olefin Thickness 0.409 standard deviation of Thickness 0.021/0.034 Cross-section (microscopy x300) 1 2 0.31 Eccentricity (circle=0 < e <1)	Item MELSA_Poly Olefin MEPoly Thickness 0.409 0.31 standard deviation of Thickness 0.021/0.034 0.017 (microscopy x300) 1 Image: Cost of thickness Image: Cost of thickness (microscopy x300) 2 0.31 0 0.16 Eccentricity (circle=0 < e < 1)	Item MELSA_Poly Olefin MELSA_Poly Ester Thickness 0.409 0.372 standard deviation of Thickness 0.021/0.034 0.017/0.031 Cross-section (microscopy x300) 1 Image: Construction of thickness 0.31 2 0.31 0 0.16 0.21 Eccentricity (circle=0 < e <1)	Item MELSA Poly Olefin MELSA Poly Ester MELSA Poly Ester MELSA Thermo. Pulse Thickness 0.409 0.372 0.333 standard deviation of Thickness 0.021/0.034 0.017/0.031 0.011 (microscopy x300) 2 2 0.31 0 0.16 0.21 0.32 Eccentricity (circle=0 < e <1)	Item MELSA_Poly Olefin MELSA_Poly Ester MELSA_Thermo. PolyUrethane Thickness 0.409 0.372 0.346 standard deviation of Thickness 0.021/0.034 0.017/0.031 0.011/0.029 Cross-section (microscopy x300) 2 2 0.31 0 0.16 0.21 0.32 0.22 Eccentricity (circle=0 < e <1)

Develop & Im MELSA - Co	^{iprove} oating yarn										04 Interna	al test rej	port			
2 Phy	sical pr	operty	_MELS	A E3_P	oly Ole	fin										
1. Commo	on data															
Raw m	trl for coati	ng	MELSA_Po	ly Olefin				Lab. N	0		QT31-1504	5				
Color c	of raw mate	erials	Yellow					Prod. [Date		2015-10-05					
🔳 Туре о	f yarn		150/D		Tested Date						2015-10-06					
2 Thiskups	as tost											Dodpoint :	2101			
Z. Thickne	ss test	_				Thicknocc(n	am Maacu	ad by the	microcono)		Reapoint .	avg±10%			
	Material		1	2	2			ed by the) Q	0	10	AVG	standard		
MELSA PO	lv Olefin	150D	0 404	0 388	0 404	0 396	0 404	0 396	0 451	0 412	0 396	0.443	0.409	0.021		
		1500	0.101	0.500	0.101	0.550	0.101	0.000	0.101	0.112	0.550	0.110	0.105	0.021		
3. Physica	l test															
	Denier(g/S	(e G94 R1)			Tensile	(kgf, Nike	G99 R0)									
963	981	981	981	972	1.310	1.330	1.280	1.310	1.320	16.6	17.3	16.6	16.6	16.6		
		2		з		4		5								
LTTT PTTT AND	THE REPORT OF	COLORIDA DE COLORIDO DE COLORIDO DE COLORIDO DE COLORIDO DE COLORIDO DE COLORI	SECONDENSION D	TANK BELLEVISION	IDERIGRATING LEVE	A DECK OF THE	NEW PROPERTY	CONTRACTOR OF STREET	10000		15/10/08 21 101.43 737	100				
											15/1043 21 XX.43 /2/			2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		

E=0.31

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Develop & Imp MELSA - Co	prove ating yarn										04 Interr	nal test re	port	
3 Phys	sical pr	opertv	MELS	AF4 P	olv Est	er						1		
1. Commor	n data													
Raw mt	rl for coati	ng	MELSA_Pol	y Ester				Lab. No	C		QT31-1504	46		
Color of	f raw mate	rials	F.Volt	·				Prod. D	Date		2015-10-0	5		
Type of	yarn		150/D					Tested	Date		2015-10-0	6		
2. Thicknes	s test											Redpoint :	avg±10%	
Material		Thickness(mm, Measured by the microscope)										standard		
			1	2	3	4	5	6	7	8	9	10		deviation
MELSA_Poly	y Ester	150D	0.385	0.360	0.398	0.385	0.360	0.360	0.367	0.379	0.342	0.379	0.372	0.017
2 Dhusical	de et	_												
3. Physical	test Denier (g/		(0.CO4.D1)			Tancila	(kaf Nika				Flongati	on (9/ Niko		
1.017		1 009	1 017	1 0 2 6	1 200	1 260		(1 270	1 200	10.6	17.2	19 0	17 2	17.2
1,017	1,055	1,000	1,017	1,020	1.590	1.500	1.500	1.570	1.590	10.0	17.5	10.0	17.5	17.5
Res .										6	S-10/52 20.41.46 M/H			
						Mar I								
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								Photos and a second second					California -	=0.16

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Develop & Impr MELSA - Coat	rove ing yarn										04 Interna	al test rep	port	
4 Physic	cal pro	operty	MELSA	A Ther	mo. Po	oly Ure	thane					1		
1. Common o	data	1 5.		-		- -								
Raw mtrl	for coatin	g	MELSA_The	ermo. Polyl	Jrethane			Lab. N	0		QT31-1504	16		
Color of r	raw materi	ials	Red					Prod. [Date		2015-10-05	5		
Type of ya	arn		150/D					Tested	Date		2015-10-06	6		
2. Thickness	test											Redpoint :	avg±10%	
Ν	Material				-	Thickness(n	nm, Measur	red by the	microscope)			AVG	standard
	·		1	2	3	4	5	6	7	8	9	10		deviation
MELSA_Polyu	irethane	150D	0.360	0.348	0.323	0.348	0.360	0.354	0.342	0.348	0.335	0.342	0.346	0.011
3. Physical te	est													
De	enier (g/9	000m, Nil	ke G94 R1)			Tensile	(kgf, Nike	G99 R0)			Elongatio	on (%, Nike	e G99 R0)	
954	954	963	963	963	1.320	1.360	1.330	1.340	1.330	15.3	16.6	15.3	15.5	15.3
1 REAKSSIESE		2		3	1. C. L. M. K.A.	4	100 C	5			161002.1713.37200	-	-	
												22251300		100
6		7		8		9		10				1 · · ·		
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		Alter to -												22







