

Product information “ACHILLES VINISTAR”

Contents:

- General information Achilles Vinistar
- Technical data Achilles Vinistar
- Chemical Resistance Achilles Vinistar
- Technical data Achilles Vinistar Flame Retardant
- General information Achilles printed window film

General information “ACHILLES VINISTAR”

Achilles Vinistar is a transparent flexible PVC film with UV inhibitor.

Main Characteristics

Excellent Transparency.

Less-stickiness to improve production efficiency (only for Vinistar Super)

High frequency welding is widely used to make finished products.

Application

Clear flexible windows for caravans, tents, boats, golf carts and other outdoor usages.

Product Availability Range

Thickness: 0.25mm – 3.0mm

Width: 700mm – 1370 mm

Hand: 1S(#370) – 8S(#650)**

**There is limitation due to thickness

N.B. Information stated on this data sheet is to best of our knowledge true and reliable, but cannot be guaranteed.

Technical Data “ACHILLES VINISTAR”

The Achilles Vinistar film (regular and super) can be made in the thicknesses 0,25mm ~ 3,0mm. The following table shows the test results of four different thicknesses: 0.4mm, 0.5mm, 0.75mm and 1,00 mm.

REF. NO	1	2	3	4	5
Thickness	0,3mm	0,4mm	0,5mm	0,5mm	1,0mm
Hand	3S	3S	3S	4S	2S
Quality	UV	UV	UV	UV + FR	UV

		Achilles Vinisar Film					Test method
		Calendered			Extruded		
Items / Unit / Test method		1	2	3	4	5	
Shore A Hardness*	Degree	91			86		JIS K-6301 A
Light transmission ratio 100% moduls	%	88,7	88,3	86,9	85,7	86,1	JIS K-7105
	M.D.	37,9	46,4	54,9	53,1	149,0	JIS K-6732
[Kgf] Tensile Strength	T.D.	32,6	41,6	50,5	48,9	129,0	
	M.D.	90,9	106,3	142,0	122,7	276,0	
[Kgf] Tear Strength	T.D.	78,4	102,6	126,0	113,2	255,0	
	M.D.	23,0	31,2	36,8	35,4	97,0	
[Kgf] Elongation [%]	T.D.	22,8	29,5	36,7	36,1	92,0	
	M.D.	383	324	395	237	300	
	T.D.	393	344	393	263	344	
Cold Crack Resistance [C]	M.D.	-36	-30	-39	-30	-32	ASTM D-1593
	T.D.	-34	-27	-39	-29	-25	
Weather Resistance**	500 hours	No major physical property change					JIS A-1415

Remarks: M.D. = Machine Direction / T.D.= Transverse Direction
UVA = 320~400nm / UVB – 290nm~320nm

* Shore A hardness --- We measured it by abt. 6mm thickness with pile up as JIS standard.

**Accelerated weathering test by Suga Test Instruments S80HB Sunshin Weather Meter.

N.B. Information stated on this data sheet is to best of our knowledge true and reliable, but cannot be guaranteed.

Chemical resistance “ACHILLES VINISTAR”

Chemical	UV Clear PVC
Hydrochloric Acid 10%	⊙
Sulfuric Acid 10%	⊙
Acetic Acid 5%	⊙
Sodium Hydroxide 10%	⊙
Aqueous Ammonia 10%	⊙
Ethyl Alcohol 50%	⊙
Acetone 95%	X
Benzene 95%	X
Formalin 95%	○
Carbon Tetrachloride 95%	△
Kerosene	△

Test Method

JIS K-7114

Size of specimen

5cm x 5cm, dipped for 168 hours

⊙ > ○ > △ > X > XX

Good >>> Bad

N.B.

Information stated on this data sheet is to best of our knowledge true and reliable, but cannot be guaranteed.

Technical data “ACHILLES VINISTAR” Flame Retardant

Materials (Type, Thickness and Hand)

REF. NO	Type	Thickness	Hand	Quality
1	F R X	0,5mm	5S	FR (meet DIN4102) + UV/Super 2

Material Data Sheet

		1	Test method	
100% moduls [Kgf]	M.D.	4,46	JIS k-6732	
	T.D.	4,27		
Tensile Strenght [Kgf]	M.D.	12,10		
	T.D.	11,60		
Tear Strenght [Kgf]	M.D.	3,19		
	T.D.	3,18		
Elongation [%]	M.D.	317		
	T.D.	319		
Heating Shrinkage [%]	M.D.	-2,0		Water bath 10 minutes at 75C
	T.D.	1,0		
Cold Crack Resistance [C]	M.D.	-28	ASTM D-1593	
	T.D.	-27		
Oxygen Index [%]	M.D.	32	JIS K-7201 A-1	

Remarks: M.D. = Machine Direction / T.D.= Transverse Direction

N.B. Information stated on this data sheet is to best of our knowledge true and reliable, but cannot be guaranteed.

General information “ACHILLES Vinistar” Printed Window Film

Our Achilles Vinistar Regular can be printed with a window like pattern. Great for usage in the tent and marine industry. It offers the same great transparency as the none printed Achilles transparent window film (the Achilles Vinistar) and it has less “line-reflection”.

Main Characteristics

Excellent Transparency.

UV resistant

No line-reflection

Application

Clear flexible windows for various tents and partitions and other outdoor usages.

Product Availability Range

Thickness: 0.8mm ~1.00mm

Width: 90cm ~ 128cm

N.B. Information stated on this data sheet is to best of our knowledge true and reliable, but cannot be guaranteed.