

# Technical Data Sheet



## PVC SHRINK FILM (ECOWISE N300)

Description: PVC shrink film for shrink sleeve and label used for hot air and steam tunnel  
 Color: Transparent  
 Surface: Glossy

Properties	Unit	Data	Test Method	
Thickness (Tolerance : $\pm 3\mu\text{m}$ )	$\mu\text{m}$	35~60	ASTM D 374	
Density	$\text{g}/\text{cm}^3$	1.34	ASTM D 1505	
Haze	%	1.0	ASTM D 1003	
Gloss	%	156	ISO 2813	
Yield	$\text{m}^2/\text{kg}$	35 $\mu\text{m}$	21.32	ASTM D 1505
		40 $\mu\text{m}$	18.66	
		50 $\mu\text{m}$	14.93	
		60 $\mu\text{m}$	12.44	
Surface Resistance	$\Omega$	$10^{13}$	JIS 61340	
Coefficient of Friction	In-side	-	0.35	ASTM D 1894
	Out-side	-	0.35	

Regulations: Hanwha PVC shrink films meets below regulations

- US FDA 21 CFR 175.300, 177.1975
- EU regulation 1907/2006EC
- Hanwha shrink films do not contain DEHP(diethylhexyl phthalate) or DBP(diputyl phthalate) or other additives phthalate with reference to EPA 8061A, GC/MS.

Storage:

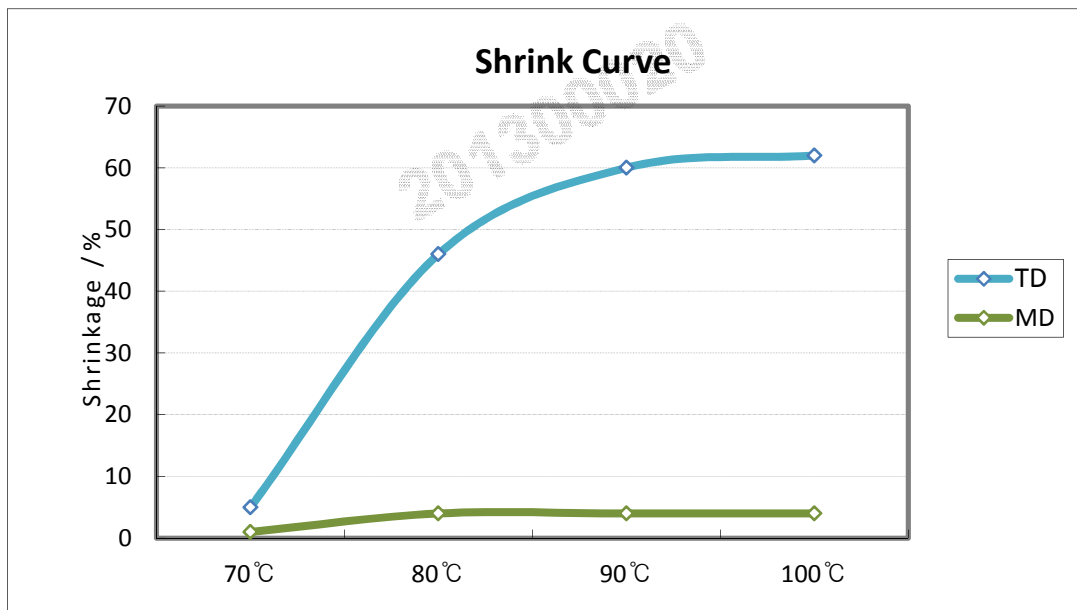
- Keep the film below 29°C (85°F) and relative humidity 55-70%
- Avoid direct sunlight
- Store on the flat floor
- Do not erect films
- Do not separate a disk before using film
- Use of the material is recommended within 6 months after on board date

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Properties	Unit	Data		Test Method	
		TD	MD		
Tensile Strength	kgf/cm <sup>2</sup>	1274.2	504.1	ASTM D 882	
Elongation	%	30.5	241.5		
Tear Resistance	kgf/cm	2038.4	684.7	ASTM D 1938	
Heat Shrinkage (Tolerance : ±3%)	70 °C	%	5	1	Soaking into hot water for 10sec
	80 °C		46	4	
	90 °C		60	4	
	100 °C		62	4	



\* This information is based on currently available technical materials.

\* The data is subject to change due to new experience and knowledge.

\* The information contained herein is for informational purposes only and is not promised or guaranteed anything.

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