



# VANGUARD SHRINK FILMS

## HY

*High performance  
crosslinked shrink film*

Vanguard HY (High Yield) is an advanced biaxially oriented thin gauge, high clarity, crosslinked film. HY enables users to lower packaging material costs and achieve greater product sustainability. This film is compatible with nearly all shrink packaging systems in use today.



**VSF** **VANGUARD**  
**SHRINK FILMS**  
[www.vanguardshrinkfilms.com](http://www.vanguardshrinkfilms.com)

**FOR YOUR TOUGHEST  
APPLICATIONS**

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## HY Highlights:



- ◆ High Yield = Lower cost per package
- ◆ Superior film strength and durable seals
- ◆ Excellent gloss and clarity
- ◆ Consistent machineability
- ◆ Longer roll lengths = More productivity
- ◆ Complies with FDA and USDA regulations

Typical Properties	ASTM Test Method	HY
Minimum use temperature (°F)		-40
Film thickness (gauge)		40
Haze (%)	D1003	2.1
Gloss (%) @ 45°	D2457	89.5
Clarity	D1746	98.9
Tensile strength (psi)	D882	17,500
Elongation at break (%)	D882	120
Stiffness modulus (psi)	D882	55,000
Tear strength (grams)	D1922	8.5
Coefficient of friction (film to film:kinetic)	D1894	0.25
WVTR (gms/100si/24hrs)	F1249	2.6
OTR (cc/100si/24hrs)	D3985	850
Unrestrained shrink (%) @ 248°F	D2732	65
Shrink force @ 248°F (psi)	D2838	480
Impact strength (in-lbs)	D3420	7