



HRI SECURITY FILMS

Product Overview

General properties

High refractive index film is transparent metalized in nature which can be used as high security transparent holograms. HRI films are metalized by Zinc Sulphide(ZnS) instead of aluminum to give transparent metalized barrier to the web for high end security applications.

Main applications

Bank documents, ID cards, hologram labels and university Certificate

HRI available products

- a) HRI security films are available in HRI tamper evident film, HRI hot stamping foil and non tamper evident film.
- b) HRI films are available in 12,16,23,50,100 and 125 micron.

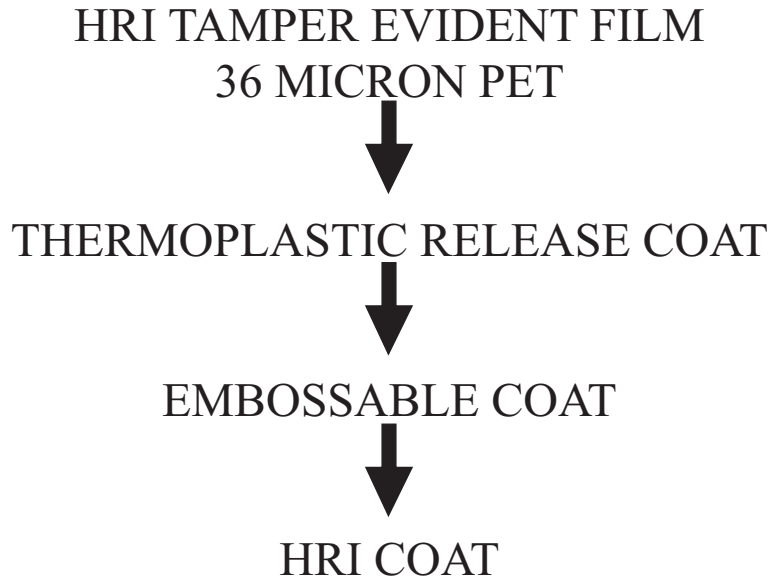
Key Features

The uniqueness of HRI film is its transparent hologram effects from security hologram to lamination films. They give consistency of hologram effects without any diffusion in comparison to other transparent hologram films.

www.rasikfoils.com

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STRUCTURE OF THE FOIL



PROPERTIES

1. Tamper proof coat
2. Ultra clear PET film
3. Embossing temperature - 85 to 105 degree Celsius
4. HRI coating - ZnS 99.9%
5. Refractive Index - 2.2 to 2.35
6. Reflectance - 34%

TEST VALUES OF 36 MICRON PET

<u>Char/test method</u>	<u>Unit</u>	<u>Measured value</u>
Avg.Thickness/Internal method	mic	36.02
Haze/ASTM-D 1003	%	1.35
Shrinkage-MD/ASTM-D1204	%	1.40
Shrinkage-TD/ASTM-D1204	%	0
Tensile St-MD/ASTM-D882	Kg/cm ²	24.60
Tensile St-TD/ASTM-D882	Kg/cm ²	25.05
Melting point	Degree Celsius	250

STRUCTURE OF THE FOIL

HARD EMOSSABLE NON TAMPER EVIDENT FILM

12 MICRON PET



PRIMER COAT



SPECIAL EMOSSABLE COAT



HRI COAT

PROPERTIES

1. Coating GSM-1.1 gm²
2. ZnS Metallization – 99.9%
3. Embossing temperature – 95 to 110 degree Celsius
4. Refractive Index - 2.2 to 2.35
5. Reflectance - 34%
6. After lamination there is no diffusion
7. Very high holographic effect

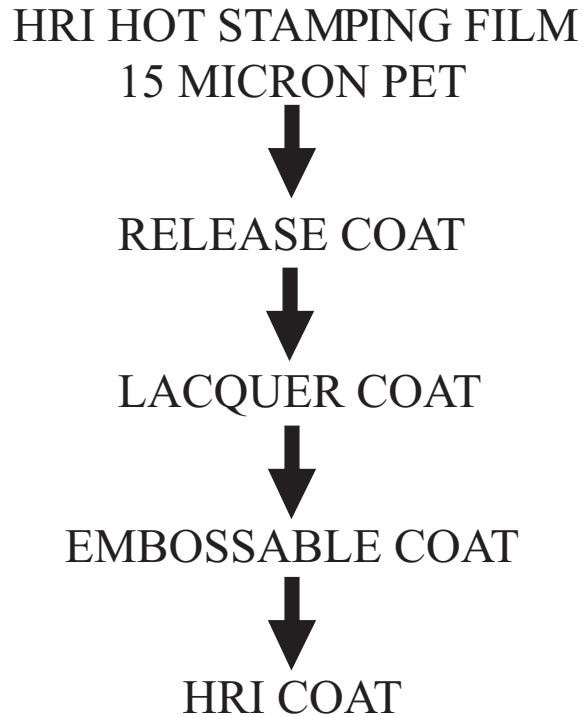
TEST VALUES OF 36 MICRON PET

<u>Char/test method</u>	<u>Unit</u>	<u>Measured value</u>
Avg.Thickness/Internal method	mic	12.06
Haze/ASTM-D 1003	%	4.10
Shrinkage-MD/ASTM-D1204	%	2.00
Shrinkage-TD/ASTM-D1204	%	0
Coeff. Of friction/ASTM-D1894		0.46
Tensile St-MD/ASTM-D882	Kg/cm ²	22.80
Tensile St-TD/ASTM-D882	Kg/cm ²	23.00
Elongation-MD/ASTM-D882	%	122
Elongation-TD/ASTM-D882	%	102
Width -As per DD-tolerance +2mm – 0.0 mm	mm	ok

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STRUCTURE OF THE FOIL



PROPERTIES

1. Thermoplastic coating
2. Ultra clear PET film
3. Embossing temperature - 95 to 110 degree Celsius
4. HRI coating - ZnS 99.9%
5. Refractive Index - 2.2 to 2.35
6. Reflectance - 34%

TEST VALUES OF 36 MICRON PET

Char/test method	Unit	Measured value
Avg.Thickness/Internal method	mic	15.06
Haze/ASTM-D 1003	%	4.05
Shrinkage-MD/ASTM-D1204	%	2.00
Shrinkage-TD/ASTM-D1204	%	0
Tensile St-MD/ASTM-D882	Kg/cm ²	23.10
Tensile St-TD/ASTM-D882	Kg/cm ²	23.80
Elongation-MD/ASTM-D882	%	122
Elongation-TD/ASTM-D882	%	102
Melting point	Degree Celsius	250

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